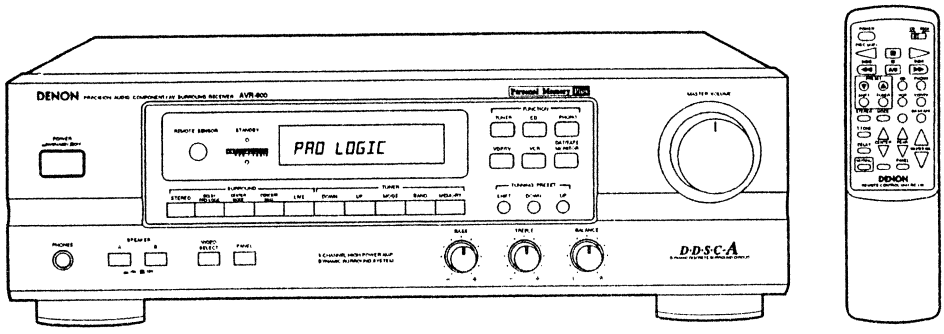
DENON

Hi-Fi AV Surround Receiver

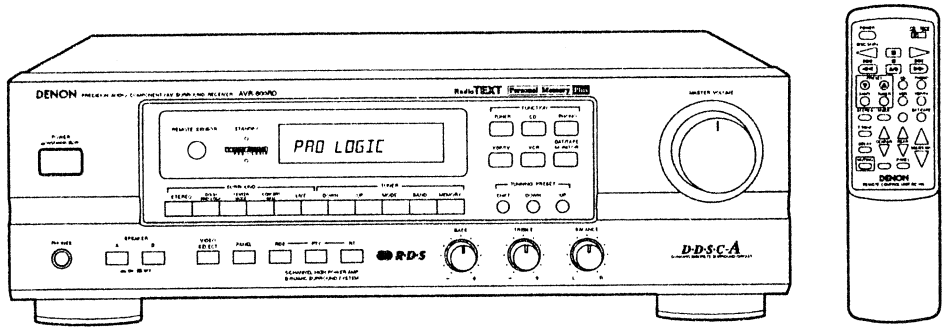
SERVICE MANUAL

MODEL AVR-600/600RD

AV SURROUND RECEIVER



(Model: AVR-600)



(Model: AVR-600RD)

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• Some illustration using in this service manual is slightly different from the actual set.

NIPPON COLUMBIA CO., LTD.

• SAFETY PRECAUTIONS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

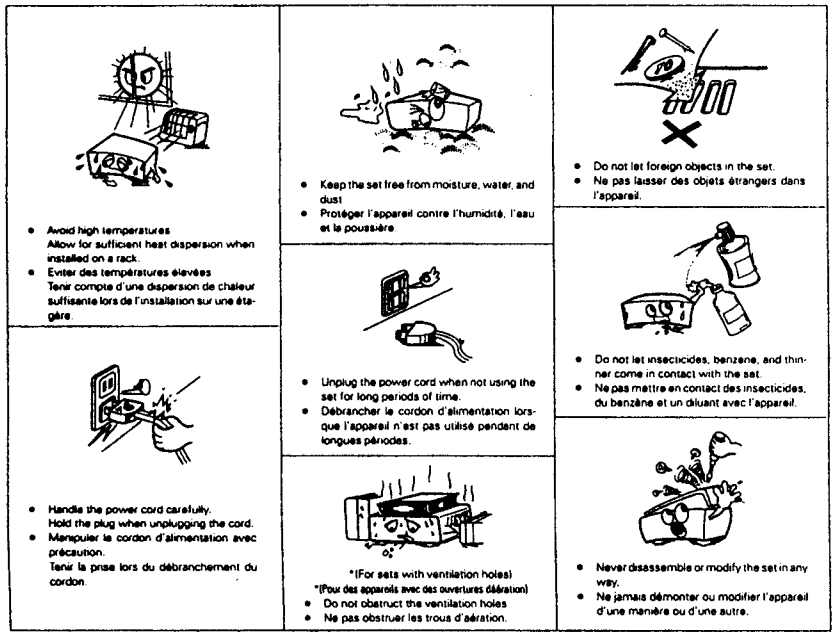
CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

NOTE ON USE / OBSERVATIONS RELATIVES A L'UTILISATION



- Avoid high temperatures
  Allow for sufficient heat dispersion when installed on a rack.
- Eviter des températures élevées
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.
- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Manipuler le cordon d'alimentation avec précaution.
  Tenir la prise lors du débranchement du cordon.
- Keep the set free from moisture, water, and dust
- Protéger l'appareil contre l'humidité, l'eau et la poussière.
- Unplug the power cord when not using the set for long periods of time.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- *(For sets with ventilation holes)
  *(Pour des appareils avec des ouvertures d'aération)
- Do not obstruct the ventilation holes
- Ne pas obstruer les trous d'aération.
- Do not let foreign objects in the set.
- Ne pas laisser des objets étrangers dans l'appareil.
- Do not let insecticides, benzene, and thinner come in contact with the set.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
- Never disassemble or modify the set in any way.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

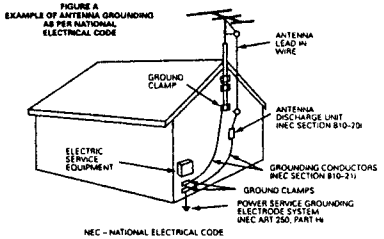


FIGURE A
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE
ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC – NATIONAL ELECTRICAL CODE

12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines – An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
    - A. The power-supply cord or the plug has been damaged; or
    - B. Objects have fallen, or liquid has been spilled into the appliance; or
    - C. The appliance has been exposed to rain; or
    - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    - E. The appliance has been dropped, or the enclosure damaged.
20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

■ We greatly appreciate your purchase of the AVR-600.
■ To be sure you take maximum advantage of all the features the AVR-600 has to offer, read these instructions carefully and use the set properly. Be sure to keep this manual for future reference should any questions or problems arise.

"SERIAL NO. _____
PLEASE RECORD UNIT SERIAL NUMBER ATTACHED TO THE REAR OF THE CABINET FOR FUTURE REFERENCE"

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• ACCESSORIES

Check that the following parts are included in addition to the main unit:

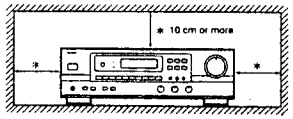
①	Operating instructions 1	④	R6P/AA batteries 2
②	Warranty 1	⑤	AM loop antenna 1
③	Remote control unit (RC-195) 1	⑥	FM indoor antenna 1

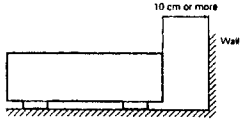
1 INTRODUCTION

• INSTALLATION PRECAUTIONS

Using this receiver or other electronic equipment containing microprocessors simultaneously with a tuner or TV may result in noise in the sound or picture.
If this should happen, take the following steps:
- Install the receiver as far as possible from the tuner or TV set.
- Keep the antenna lines of the tuner or TV as far as possible from the receiver's power cord and connection cables.
- This problem is especially frequent when using indoor antennas. We recommend using outdoor antennas and 75 Ω/ohms coaxial cables.

For heat dispersal, leave at least 10 cm of space between the top, back and sides of this unit and the wall or other components.





CAUTION:
Whenever the power switch is in the STANDBY position, the unit is still connected on AC line voltage.
Please be sure to unplug the cord when you leave home for, say, a vacation.

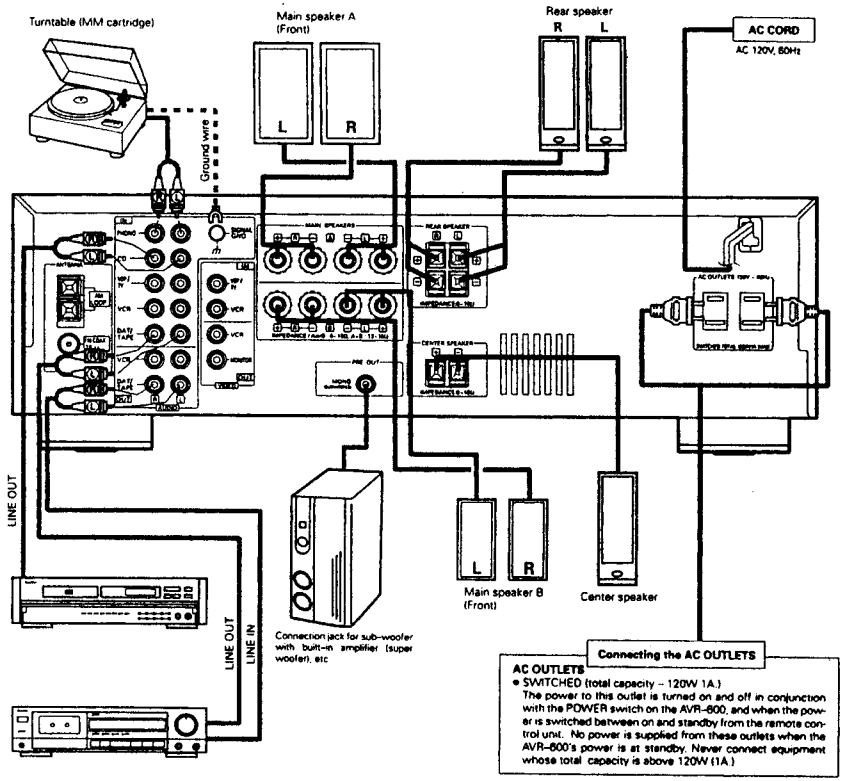
2 CONNECTIONS

- Do not plug in the power cord until all connections have been completed.
- Be sure to connect the left and right channels properly (left with left, right with right).
- Insert the plugs securely. Incomplete connections will result in the generation of noise.
- **Use the AC OUTLETS for audio equipment only. Do not use them for hair driers, etc.**
- Note that binding pin plug cords together with power cords or placing them near a power transformer will result in the introduction of hum or other noise.
- If hum or other noise is produced when the ground wire is connected, disconnect it.
- Noise or humming may be generated if a connected component is used independently without turning the power of the AVR-600 on. If this happens, turn on the power of the AVR-600.

2-1 Connecting the audio components

NOTE:
The receiver cannot be used with MC cartridges directly. Use a separate head amplifier or step-up transformer.

• Precautions when connecting speakers
If a speaker is placed near a TV or video monitor, the colors on the screen may be disturbed by the speaker's magnetism. If this should happen, move the speaker away to a position where it does not have this effect.

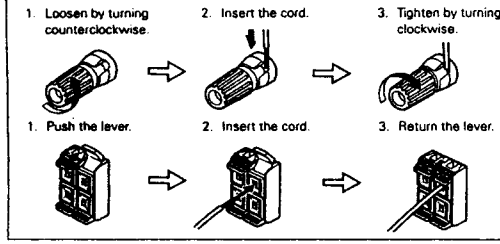

Turntable (MM cartridge)
Ground wire
Main speaker A (Front)
L
R
Rear speaker
R
L
AC CORD
AC 120V, 60Hz
LINE OUT
LINE OUT
LINE IN
Connection jack for sub-woofer with built-in amplifier (super woofer), etc
Main speaker B (Front)
L
R
Center speaker
Connecting the AC OUTLETS
AC OUTLETS
• SWITCHED (total capacity – 120W 1A.)
The power to this outlet is turned on and off in conjunction with the POWER switch on the AVR-600, and when the power is switched between on and standby from the remote control unit. No power is supplied from these outlets when the AVR-600's power is at standby. Never connect equipment whose total capacity is above 120W (1A.)
NOTE:
Only use the AC outlets for audio equipment. Never use them for hair driers, TVs or other electrical appliances.

2-2 Speaker System Connections

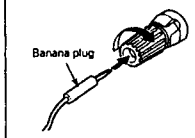
- This receiver can accommodate connections of a total of seven speakers including two set of (front) main speakers (A and B), one set of rear speakers, and one center speaker.
- Connect the speaker terminals with the speakers making sure that like polarities are matched (⊕ with ⊕, ⊖ with ⊖). Mismatching of polarities will result in weak central sound, unclear orientation of the various instruments, and the sense of direction of the stereo being impaired.
- When making connections, take care that none of the individual conductors of the speaker cord come in contact with adjacent terminals, with other speaker cord conductors, or with the rear panel.

- **Speaker Impedance**
  - When speaker systems A and B are use separately, speakers with an impedance of from 6 to 16 Ω/ohms can be connected.
  - Be careful when using two pairs of in speakers (A + B) at the same time, since use of speakers with an impedance outside the range of 12 to 16 Ω/ohms will lead to damage.
  - Speakers with an impedance of 8 to 16 Ω/ohms can be connected for use as center and rear speakers.
  - The protection circuit may operate or damage may occur when speakers with an impedance outside of the above range are used.

Connecting the speaker terminals


1. Loosen by turning counterclockwise.
2. Insert the cord.
3. Tighten by turning clockwise.
1. Push the lever.
2. Insert the cord.
3. Return the lever.

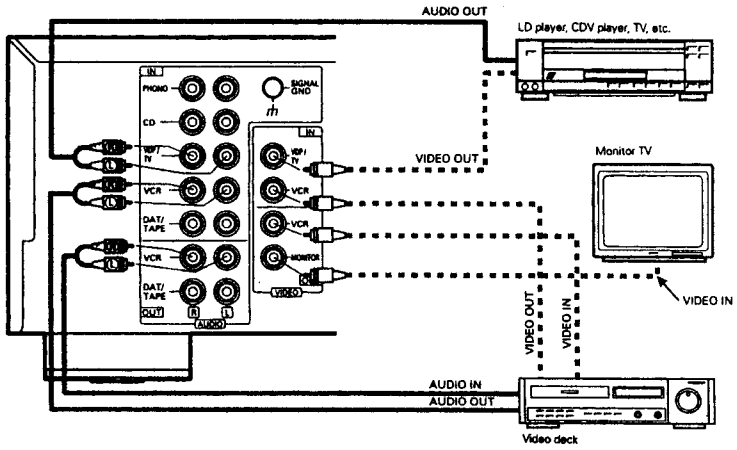
Connecting banana plugs



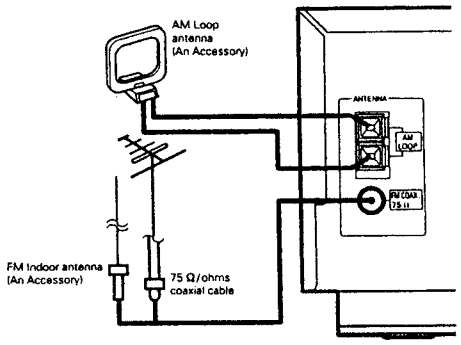
Turn clockwise to tighten, then insert the banana plug.

2-3 Connecting the video components

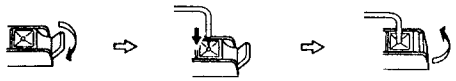
To connect the video signal, connect using a 75 Ω/ohms video signal cable cord. Using an improper cable can result in a drop in sound quality.



2-4 Connecting the antenna terminals



Connection of AM antennas



ANTENNA INSTALLATION

- **FM ANTENNA**
  The supplied FM antenna can be used inside wooden houses for receiving local FM stations and other strong FM signals. Stretch out the ends of the antenna and mount the antenna on the wall or ceiling where optimum reception is achieved. A indoor FM antennas may not consistently ensure stable reception, due to environment changes. In such cases, the indoor FM antenna should only be used temporarily until an outdoor FM antenna has been installed.
  When connecting an outdoor FM antenna, the use of 75 Ω/ohms coaxial cable (3C-2V, 5C-2V) is strongly recommended.
- **AM ANTENNA**
  Tune in an AM station (refer to Page 12, 13) listen to the sound, then install the antenna in a position as far from the set as possible in which distortion and noise are minimum. Good reception of AM stations is not possible if the loop antenna is not connected or if it is touching metal objects.

NOTES

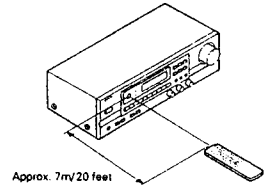
- This receiver has a full back-up system. When the power is turned on, the INPUT SELECTOR buttons are set to the last mode set before the power was turned off.
- When using this receiver in close proximity to video equipment (TV, VCR, VDP, etc.), noise may be generated in AM broadcasts. To avoid this, keep the receiver as far away from other video components as possible, or place the AM loop antenna where noise is reduced. If the noise is not reduced, turn off the power of the video components when listening to AM broadcasts.

Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

3 REMOTE CONTROL UNIT

Following the procedure outlined below, insert the batteries before using the remote control unit.

■ Range of operation of the remote control unit



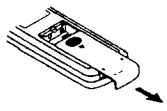
Point the remote control unit at the remote control sensor as shown on the diagram at the left.

NOTES:

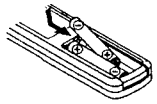
- The remote control unit can be used from a straight distance of approximately 7 meters/20 feet, but this distance will shorten or operation will become difficult if there are obstacles between the remote control unit and the remote control sensor, if the remote control sensor is exposed to direct sunlight or other strong light, or if operated from an angle.
- Neon signs or other devices emitting pulse-type noise nearby may result in malfunction, so keep the set as far away from such devices as possible.

■ Inserting the batteries

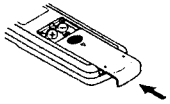
1. Open the bottom cover of the remote control unit and remove the battery cover.



2. Insert the two R6P/AA batteries, matching the ⊕ and ⊖ marks on the batteries with those in the case.



3. Close the bottom cover until it clicks shut.



NOTES:

- Use only AA, R6P, UM-3 batteries for replacement.
- Be sure the polarities are correct. (See the illustration inside the battery compartment.)
- Remove the batteries if the remote control transmitter will not be used for an extended period of time.
- If batteries leak, dispose of them immediately. Avoid touching the leaked material or letting it come in contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.
- Have replacement batteries on hand so that the old batteries can be replaced as quickly as possible when the time comes.

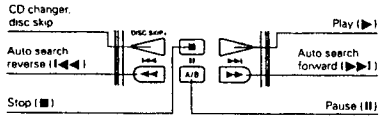
■ System code buttons

DENON remote-controllable audio components can be controlled using this unit's remote control unit.
Note that some components, however, cannot be operated with this remote control unit.

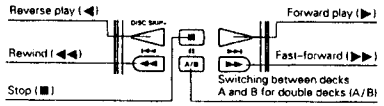
❶ Set the slide switch to the position for the component to be operated (CD or DECK)

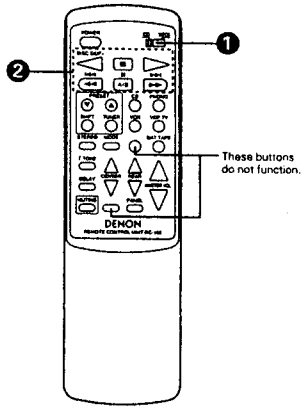
❷ Use the buttons shown below to operate the component
For details, refer to the respective component's manual.

a. For CD players



b. For tape decks (DECK)



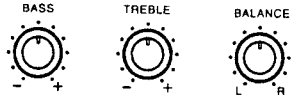


4 OPERATIONS

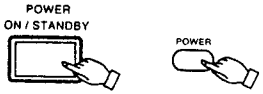
4-1 Preparations for playback

❶ Check that all connections are proper.
❷ Set to the minimum position

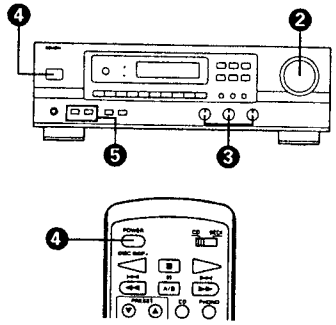
❸ Set to the center position.



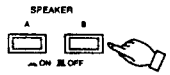
❹ Turn on the power.
Press the POWER button.



Several seconds are required from the time the power switch is set to the "ON" position until sound is output. This is due to the built-in muting circuit that prevents noise when the power switch is turned on and standby

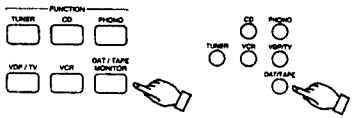


❺ Select the front speakers:
Press the speaker A or B switch to turn the speaker on.

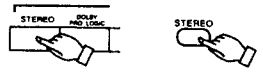


4-2 Playing the program source (Stereo playback)

❶ Select the source to be played.

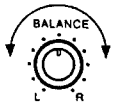


❷ Select the STEREO mode.



❸ Adjust the MASTER VOLUME control.

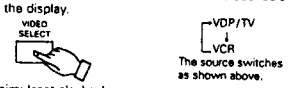
❹ Adjust the front left/right BALANCE
Turn the control counterclockwise to reduce the volume of the right channel, clockwise to reduce the volume of the left channel.



4-3 Simulcast playback

Use this switch to monitor a video source other than the audio source.

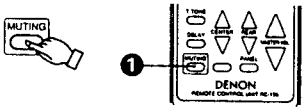
❶ Press and hold the VIDEO SELECT button until the desired source appears on the display.



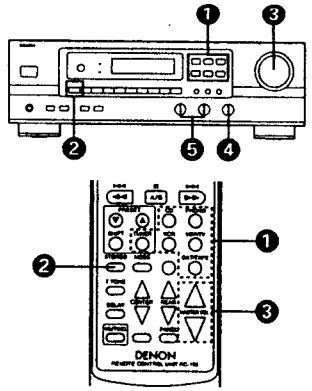
* Cancelling simulcast playback
• Press the VIDEO SELECT button once more.
• Select the VIDEO function.

4-4 Using the muting function

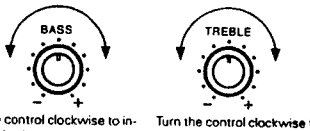
Use this to turn off the audio output temporarily.
❶ Press the MUTING button.
* Cancelling MUTING mode.
Press the MUTING button again.



This function can only be set from the remote control unit.
The STANDBY LED flashes when the muting function is set

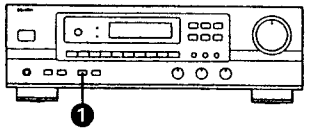


❺ Adjust the BASS and TREBLE.



Turn the control clockwise to increase the bass, counterclockwise to decrease it.

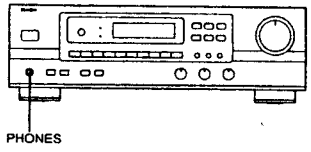
Turn the control clockwise to increase the treble, counterclockwise to decrease it.



4-5 Listen with headphones

Connect the headphones to the PHONES jacks.
When listening with headphones privately, set A, B SPEAKER switches and the superwoofer's power switch to the OFF position and set the stereo surround mode.

NOTE:
To prevent hearing loss, do not raise the volume level excessively when using headphones.



4–6 Recording the program source
(recording the source currently being monitored)

❶ Follow steps ❶ to ❹ under "Playing the program source". (refer to Page 9)

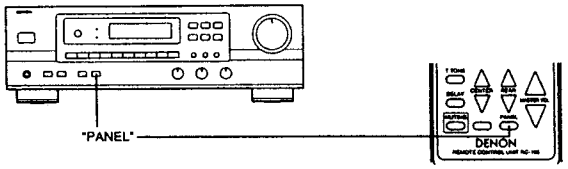
❷ Start recording on the tape or video deck.
For instructions, refer to the component's operating instructions.

Simultaneous recording

The signals of the source selected with the function selector button are output simultaneously to the DAT/TAPE and VCR REC OUT jacks.
If a total of two tape and/or video decks are connected and set to the recording mode, the same source can be recorded simultaneously on both decks.
In addition, if the TAPE MONITOR (DAT/TAPE) button is pressed, the audio signals from the tape deck are output to the VCR AUDIO REC OUT jacks.

4–7 Front panel display

Descriptions of the unit's operations are also displayed on the front panel display. In addition, the display can be switched to check the unit's operating status while playing a source by pressing the PANEL button.

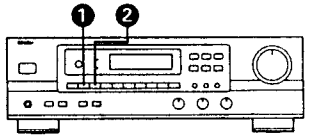


4–8 Using the surround function
Types of surround modes and their characteristics

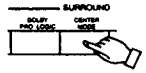
1	DOLBY PRO LOGIC	Use this when playing program sources recorded in Dolby Surround or Dolby Stereo.
2	CONCERT HALL	Use this setting to create the atmosphere of a concert hall. There will be no output from the center speaker.
3	LIVE	Use this setting to create the atmosphere of watching a live performance. There will be no output from the center speaker.

• Before using the surround function
Make the following adjustments before using the surround function.

❶ Set the Dolby Pro Logic mode.

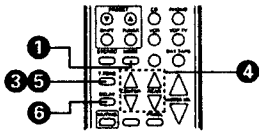


❷ Select the center mode.
Select the center mode according to the center speaker.



NORMAL → PHANTOM → WIDE

The mode changes as shown above.



❸ Emit the test tone.

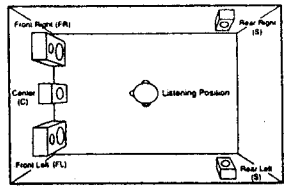
Test tones are produced from the speakers in the order shown below, at 4 second intervals for the first two cycles, 2 second intervals after that.

→ FL → C → FR → S

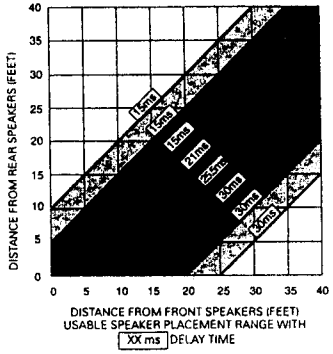
❹ Adjust the center and rear levels to set the volume of the speakers to the same level.

❺ Turn the test tone off.

❻ Adjust the delay time and seating position as necessary.



Dolby Surround systems with Pro Logic decoding most closely replicate the Dolby Stereo theatrical experience. Only two surround speakers are necessary in the home listening environment to provide the same enveloping soundfield as multiple surround speakers in the theater.



Center Mode

Set the center mode as described below, according to the type of center speaker being used.

Normal mode: This mode is suited for an arrangement in which the center channel speaker is smaller than the left and right speakers. Signals below 100 Hz which have almost no effect on directional orientation are distributed to the left and right channels, whereas the center channel output signals greater than 100 Hz. As a result, the bass of the left and right channels increases the apparent deepness of the sound.

Wide mode: This mode is suited for an arrangement in which the center channel speaker is of the same grade as the left and right speakers. The entire sound band from low region to high is output to the center channel to provide an exciting sound field for your enjoyment.

Phantom mode: Use this mode when center channel speaker is not used. A directional emphasis circuit provides signal reproduction which is electrically oriented to the center and this provides an exciting sound field for your enjoyment.

Delay Time

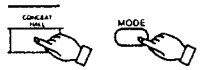
The optimum delay time will differ depending on the listening position. Referring to the chart at left, set the optimum delay time for your room's space and seating position. For example, when the distance from the front speakers to the listening position is 20 feet and that from the rear speakers to the listening position is 15 feet, the optimum delay time will be 21 ms.
The variable range of the delay time differs depending on the mode.

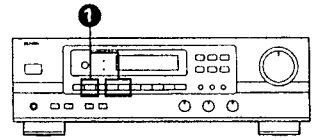
Personal Memory Plus function .... for EASY TO USE

The AVR-600 automatically stores the surround mode adding effects for all input sources. The corresponding surround mode is recalled automatically each time an input source is selected.

• Using the surround function

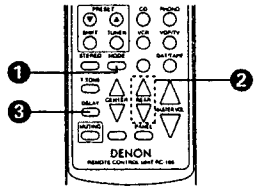
❶ Select the surround mode according to the input source





❷ If necessary, adjust the levels.

❸ Adjust the parameters to the desired settings.



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Operating Possible in the Various Surround Modes

The following is a list of the buttons and functions which can be operated during the different surround modes. Figures in parentheses indicate adjustment ranges.

		OUTPUT	CENTER LEVEL	REAR LEVEL	CENTER MODE	TEST TONE	DELAY TIME
DOLBY PRO LOGIC	NORMAL	○	○ (0 ~ –24dB)	○ (0 ~ –24dB)	○	○	○ (15 ~ 30ms)
	PHANTOM	○	×	○ (0 ~ –24dB)	○	○	○ (15 ~ 30ms)
	WIDE	○	○ (0 ~ –24dB)	○ (0 ~ –24dB)	○	○	○ (15 ~ 30ms)
CONCERT HALL		○	×	○ (0 ~ –24dB)	Δ*1	×	○ (0 ~ 33ms)
LIVE		○	×	○ (0 ~ –24dB)	Δ*1	×	○ (0 ~ 33ms)

○: Operation possible ×: Operation not possible

*1 Switches to the Dolby Pro Logic from any modes other than Dolby Pro Logic
The level of the center and rear channels can be adjusted by 2 dB step.
The delay time can be set by 1.5 ms step.

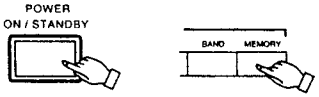
- **The sound may be distorted for some sources if the rear level is raised during surround playback. If this happens, lower the rear level.**

5 LISTENING TO THE RADIO

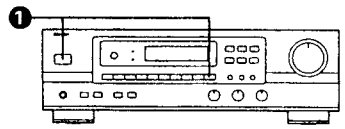
5-1 Auto preset memory

This unit is equipped with a function for automatically searching for FM broadcast stations and storing them in the preset memory.

❶ Turn on the unit while holding in the MEMORY button. The unit automatically begins searching for FM broadcast stations.



❷ When the first FM broadcast station is found, that station is stored in the preset memory at channel A1. Subsequent stations are automatically stored in order at preset channels A2 to A8, B1 to B8, C1 to C8, D1 to D8 and E1 to E8, for a maximum of 40 stations.



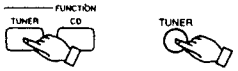
❸ Channel A1 is tuned in after the auto preset memory operation is completed.

NOTES:

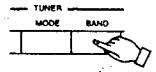
- If an FM station cannot be preset automatically due to poor reception, use the "Manual tuning" operation to tune in the station, then preset it using the manual "Preset memory" operation.
- To interrupt this function, press the POWER button.

5-2 Auto tuning

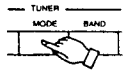
❶ Set the input function to "TUNER".



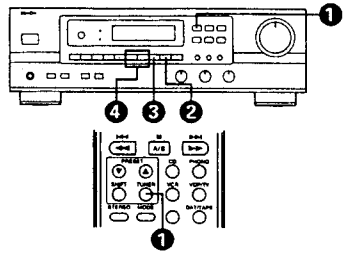
❷ Watching the display, press the BAND button to select the desired band (AM or FM).



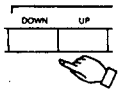
❸ Press the MODE button to set the auto tuning mode.



"AUTO" appears on the display.



❹ Press the TUNING UP or DOWN button.



Automatic searching begins, then stops when a station is tuned in. If tuning does not stop at the desired station, use to the "Manual tuning" operation.

5-3 Manual tuning

❶ Set the input function to "TUNER".
❷ Watching the display, press the BAND button to select the desired band (AM or FM).
❸ Press the MODE button to set the manual tuning mode.
Check that the display's "AUTO" indicator turns off.
❹ Press the TUNING UP or DOWN button to tune in the desired station.
The frequency changes continuously when the button is held in.

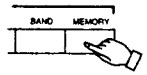
NOTES:

- When in the auto tuning mode on the FM band, the "STEREO" indicator lights on the display when a stereo broadcast is tuned in. At open frequencies, the noise is muted and the "TUNED" and "STEREO" indicators turn off.
- When the manual tuning mode is set, FM stereo broadcasts are received in monaural and the "STEREO" indicator turns off.

5-4 Preset memory

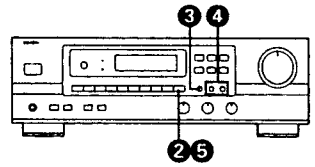
❶ Use the "Auto tuning" or "Manual tuning" operation to tune in the station to be preset in the memory.

❷ Press the MEMORY button.

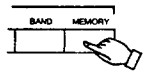


❸ Press the SHIFT button and select the desired memory block (A to E).

❹ Press the PRESET UP or DOWN button to select the desired preset channel (1 to 8).



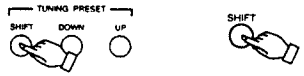
❺ Press the MEMORY button again to store the station in the preset memory.



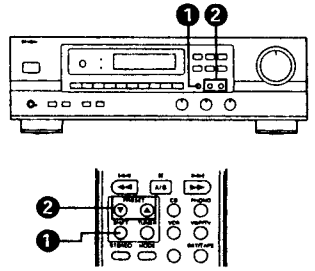
To preset other channels, repeat steps ❷ to ❺.
A total of 40 broadcast stations can be preset — 8 stations (channels 1 to 8) in each of blocks A to E.

5-5 Recalling preset stations

❶ Watching the display, press the SHIFT button to select the preset memory block.



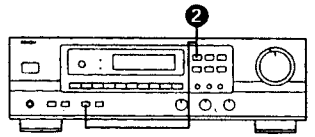
❷ Watching the display, press the PRESET UP or DOWN button to select the desired preset channel.



6 INITIALIZATION OF THE MICROPROCESSOR

When the indication of the MFD display is not normal or when the operation of the unit does not shows the reasonable result, the initialization of the microprocessor is required by the following procedure.

❶ Switch off the unit and remove the AC power cord from the wall outlet.
❷ Hold the following TUNER button and VIDEO SELECT button, and plug the power cord into the outlet.
❸ Check that the entire display is flashing with an interval of about 1 second, and release your fingers from the 2 buttons.
❹ Switch on the unit and the microprocessor will be initialized.



NOTE:

- When the microprocessor is reset, all the settings you have made are reset to the values set upon shipment from the factory.

7 LAST FUNCTION MEMORY

- This receiver is equipped with a last function memory which stores the input and output setting conditions as they were immediately before the power is switched off.
  This function eliminates the need to perform complicated resettings when the power is switched on.
- This receiver is also equipped with a back-up memory. This function provides approximately one week of memory storage with the power cord disconnected.

8 TROUBLESHOOTING

If a problem should arise, first check the following:
1. Are the connections correct?
2. Have you followed all operational instructions correctly?
3. Are the speakers, turntable, and other components operating properly?
If the receiver is not operating properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. Disconnect the power immediately and contact your store of purchase.

	Symptom	Cause	Measures	Page
Common problems arising when listening to the CD, records, tapes, and FM broadcasts, etc	DISPLAY not lit and sound not produced when power switch set to on.	• Power cord not plugged in securely.	• Check the insertion of the power cord plug.	5
	DISPLAY lit but sound not produced.	• Speaker cords not securely connected. • Speaker switch is off. • Improper position of the audio function button • Volume control set to minimum. • MUTING is on	• Connect securely. • Turn on speaker switch. • Set to a suitable position. • Turn volume up to suitable level. • Switch off MUTING.	5, 6 8 9 8 9
	–PROTECT– display appears	• Speaker terminals are short-circuited. • Block the ventilation holes of the set • The unit is operating at continuous high power conditions and/or inadequate ventilation.	• Switch power off, connect speakers properly, then switch power back on. • Turn off the set's power, then ventilate it well to cool it down. Once the set is cooled down, turn the power back on. • Turn off the set's power, then ventilate it well to cool it down. Once the set is cooled down, turn the power back on.	5, 6 — —
	Sound produced only from one channel.	• Incomplete connection of speaker cords. • Incomplete connection of input/output cords. • Left/right balance is off.	• Connect securely. • Connect securely. • Adjust balance knob properly.	5, 6 5, 6 8
	Positions of instruments reversed during stereo playback.	• Reverse connections of left and right speakers or left and right input/output cords.	• Check left and right connections.	5, 6
	Sound seems distorted.	• Rear level is too high	• Set the rear level to lower level.	10, 11
When playing records	Humming noise produced when record is playing	• Ground wire of turntable not connected properly. • Incomplete PHONO jack connection. • TV or radio transmission antenna nearby.	• Connect securely. • Connect securely. • Contact your store of purchase.	5 5 —
	Howling noise produced when volume is high.	• Turntable and speaker systems too close together • Floor is unstable and vibrates easily.	• Separate as much as possible. • Use cushions to absorb speaker vibrations transmitted by floor. If turntable is not equipped with insulators, use audio insulators (commonly available).	— —
	Sound is distorted	• Stylus pressure too weak. • Dust or dirt on stylus. • Cartridge defective	• Apply proper stylus pressure. • Check stylus. • Replace cartridge	— — —
	Volume is weak	• MC cartridge being used	• Replace with MM cartridge or use a head amplifier or step-up transformer.	5
Remote control unit	Receiver does not operate properly when remote control unit is used	• Batteries dead • Remote control unit too far from receiver. • Obstacle between receiver and remote control unit • Different button is being pressed. • ⊕ and ⊖ ends of battery inserted in reverse.	• Replace with new batteries. • Move closer. • Remove obstacle. • Press the proper button. • Insert batteries properly.	7 7 7 7, 8 7

9 SPECIFICATIONS

- **Audio Section**

(Power amplifier)
Rated output: FRONT (main 2ch driven) 50 W + 50 W (8 Ω/ohms, 20 Hz – 20 kHz with 0.08% THD)
(All properties shown are only for the power amplifier stage.) CENTER (center 1ch driven) 50 W (8 Ω/ohms, 20 Hz – 20 kHz with 0.08% THD)
REAR (rear 2ch driven) 15 W + 15 W (8 Ω/ohms, 1 kHz with 0.3% THD)
Output terminals: Front: 6 to 16 Ω/ohms; Center: 8 to 16 Ω/ohms; Rear: 8 to 16 Ω/ohms

(Pre-amplifier)
Line input (Each line input – FRONT SP OUT)
Input sensitivity / impedance: 150 mV/47 kΩ/kohms; PHONO (MM): 2.5 mV/47 kΩ/kohms
Frequency response: 10 Hz to 50 kHz: ±3 dB
Tone control range: BASS: ±10 dB at 100 Hz; TREBLE: ±10 dB at 10 kHz
Signal-to-noise ratio: 92 dB (STEREO)
Phono equalizer (PHONO input – REC OUT)
RIAA deviation: ±1dB (20 Hz to 20 kHz)
Signal-to-noise ratio: 74 dB (A weighting, with 5 mV input)
Rated output / Maximum output: 150 mV / 8 V

- **Tuner Section**

	[FM] (note: µV at 75 Ω/ohms, 0 dBf = 1 × 10^{-15} W)		[AM]
Receiving Range:	87.5 MHz ~ 107.9 MHz		520 kHz ~ 1710 kHz
Usable Sensitivity:	1.0 µV (11.2 dBf)		18 µV
50 dB Quieting Sensitivity:	MONO	1.6 µV (15.3 dBf)	
	STEREO	23 µV (38.5 dBf)	
Signal to Noise Ratio (IHF-A):	MONO	80 dB	50 dB
	STEREO	75 dB	
Total Harmonic Distortion (at 1 kHz):	MONO	0.15%	
	STEREO	0.3%	

- **Video Section**
Standard video jacks
Input and output level / impedance: 1 Vp-p / 75 Ω/ohms
Frequency response: 2 Hz to 8 MHz +0, −3 dB

- **General**
Power supply: AC 120 V, 60 Hz
Power consumption: 3.0 A
Maximum external dimensions: 434 (W) × 142 (H) × 315 (D) mm (17-3/32" × 5-19/32" × 12-25/64")
Weight: 7.6 kg (16 lbs 12 oz)

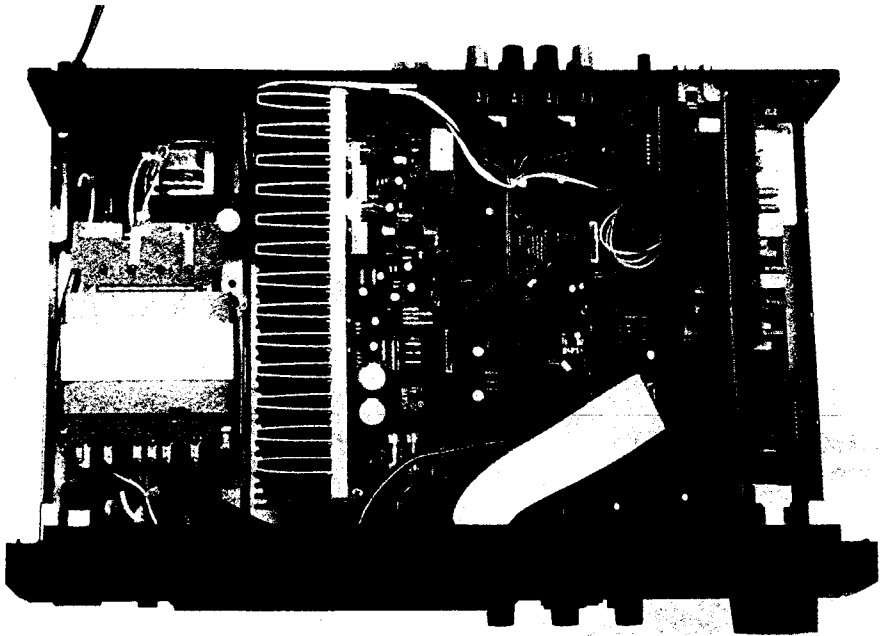
- **Remote control unit**
System remote control
RC-195:

Total buttons:	28	
DENON system code		
CD player:	6 buttons	(SWITCHED)
Cassette deck:	6 buttons	(SWITCHED)
AVR-600 fixed codes:	22 buttons	
Batteries:	R6P/AA Type (two batteries)	
External dimensions:	51 (W) × 175 (H) × 18.5 (D) mm (2" × 6-57/64" × 47/64")	
Weight:	100 g (Approx. 3.5 oz) (including batteries)	

* For purposes of improvement, specifications and design are subject to change without notice.

WIRE ARRANGEMENT

In case of wires require unclasping or loosening to move the location to perform adjustment or part replacement, be sure to rearrange them neatly to restore properly in the same location as they were originally placed, or causing to produce a noise may occasionally occur.

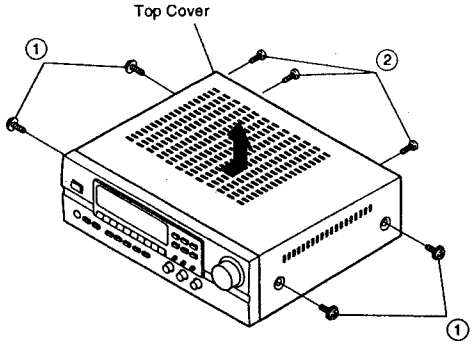


DISASSEMBLY

(To reassemble reverse disassembly)

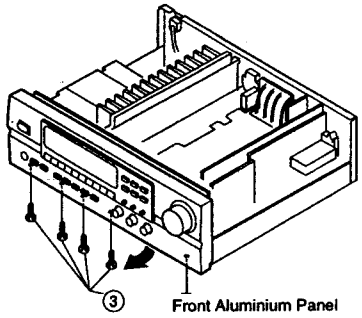
1. Top Cover

Remove 4 screws ① and 3 screws ② .



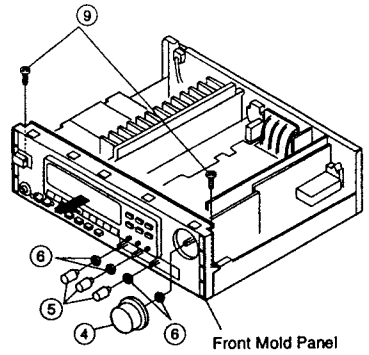
2. Front Aluminium Panel

Remove 4 screws ③ .



3. Front Mold Panel

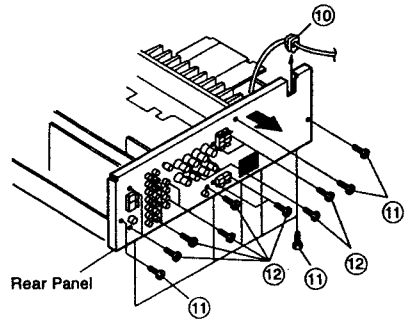
1) Pull out Volume knob ④ and 3 round knobs ⑤ .
2) Remove 4 nuts ⑥ .
3) Remove 2 screws ⑨ .



4. Rear Panel

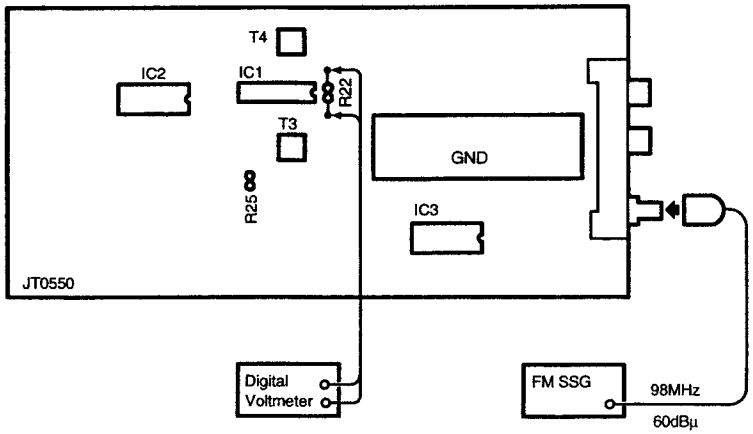
1) Disconnect cord bush ⑩ .
2) Remove 8 screws ⑪ , and 15 screws ⑫ .

* Screws ⑫ is tighten.



CONNECTION DIAGRAM OF MEASURING INSTRUMENTS

● FM SECTION



Adjust T4 potential difference across R22 should be within 30mV.

● Initiating (Memory clearing) Method

To clear memory contents of microcomputer and restore to the initial state, take the following steps;

1. Press power switch, turn off power of the unit, and set to standby mode. (E1, E3)
2. Pull out power cord from wall outlet temporarily.
3. Insert power cord into outlet while simultaneously pressing two keys of TUNER and VIDEO SELECT.
4. Press power switch to confirm that memory contents are cleared.

By completion of the above, the initial state is restored. In case the memory can not be cleared due to some reasons, repeat steps 1 through 3.

Note:
When in the E2 Standby mode, the unit is in the Power OFF state when turn Power SW ON with remote control.

● AUDIO SECTION

Idling Current (JT0551)
Required measurement equipment: DC Voltmeter

Arrangement

(1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room temperature 15°C~30°C. (59°F~86°F).

(2) Presetting

- POWER (Power source switch) → ON
- MODE (Mode button) → STEREO
- FUNCTION (Function button) → CD
- VOLUME (Volume control) → 0: fully counterclockwise (min.)
- BASS, TREBLE (Tone control) → 0: (Controls to center)
- SPEAKERS (Speaker terminal) → No load (Do not connect speaker, dummy resistor, etc.)

Adjustment

(1) Remove top cover and set VR401, VR301 and VR302 of JT0551 (Main Unit) at counterclockwise fully.

(2) Connect DC Voltmeter to test points (Lch TPL, Rch TPR, CENTER ch TPC).

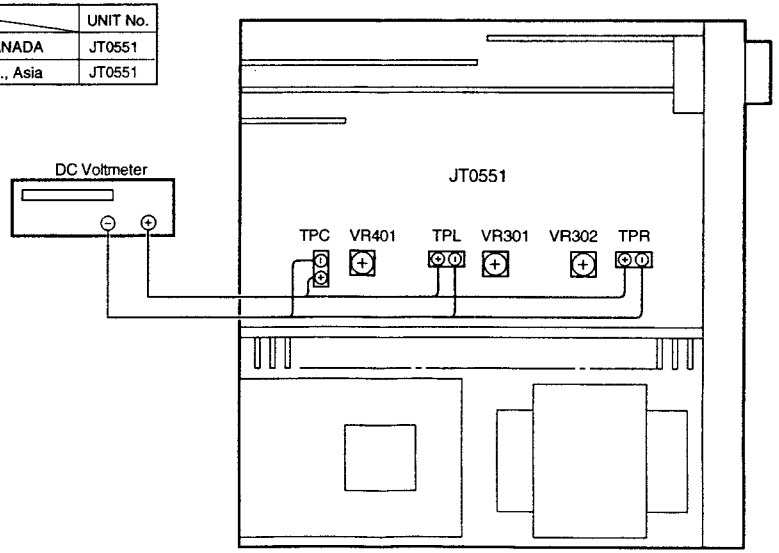
(3) Connect power cord to AC Line, and turn power switch "ON".

(4) Allow 15 minutes, and turn VR301, VR302 and VR401 clockwise ( ) and adjust the TEST POINTS voltage to 1.5 mV ± 0.5 mV DC.

(5) After 2 minutes from preset, turn VR301, VR302 and VR401 to set the voltage to 3 mV ± 0.5 mV DC.

JT0551 Main Unit (Component Side)

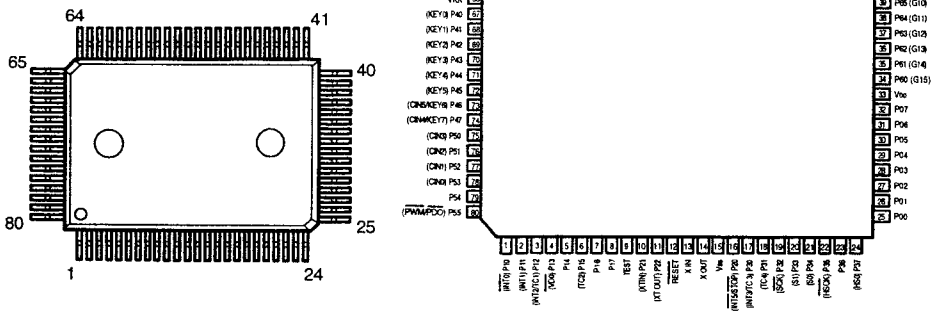
	UNIT No.
U.S.A. and CANADA	JT0551
EUROPE, U.K., Asia	JT0551



SEMICONDUCTORS

● IC's

TMP87CM71F-6314 (IC701)



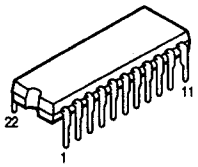
TMP87CM71F-6314 Terminal Function

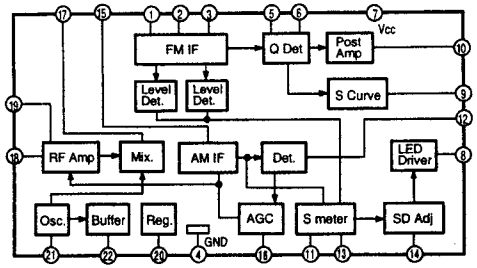
Pin No.	Symbol	I/O	Type	Op	Det	Res	Ini	Function
1	STOP	I	—	Eu	Lv	Z	—	Detect power stop ("L" at power stop)
2	PROTECTION	I	—	Eu	E&L	Z	—	Protection input ("H" at protection)
3	EXP. DATA	O	C	—	—	Z	L	Port expand data output
4	EXP. CK	O	C	—	—	Z	L	Port expand clock output
5	EXP. STB	O	C	—	—	Z	L	Port expand strobe output
6	VR. CK	O	C	—	S	Z	L	TC9176 (electron VR) control clock output
7	VR. DATA	O	C	—	S	Z	L	TC9176 (electron VR) control data output
8	VR. STB	O	C	—	—	Z	L	TC9176 (electron VR) control strobe output
9	TEST	I	—	GND	—	—	—	Connect to ground
10	TUNED	I	—	Eu	Lv	Z	—	"L" at stereo receive
11		O	—	—	—	Z	L	Fixed output on "L"
12	RESET	I	—	Eu	Lv	Z	—	Reset input
13	X IN	I	—	—	—	—	—	Oscillating circuit (4 MHz)
14	X OUT	O	—	—	—	—	—	Oscillating circuit (4 MHz)
15	GND	I	—	GND	—	—	—	Ground
16	RDS START	I	—	Eu	Ed	Z	—	RDS data, Start signal input (LC704)*
17	REMOCON	I	—	Eu	E&L	Z	—	Remote control signal input
18	STEREO	I	—	Eu	—	Z	L	"L" at TUNER stereo receive
19	RDS. CK	I	—	Eu	S	Z	—	RDS clock input (LC7074)*
20	RDS. DATA	I	—	Eu	S	Z	—	RDS data input (LC7074)*
21	RDS. RESET	O	N	Eu	—	Z	L	RDS reset signal output (LC7074)*
22	PLL. CK	O	N	Eu	—	Z	L	LM7001 control clock output
23	PLL. STB	O	N	Eu	—	Z	L	LM7001 control strobe output
24	PLL. DATA	O	N	Eu	—	Z	L	LM7001 control data output
25	FUNC. DATA	O	C	—	—	Z	L	LC7822 (Function IC) control data output
26	FUNC. CK	O	C	—	—	Z	L	LC7822 (Function IC) control clock output
27	FUNC. STB	O	C	—	—	Z	L	LC7822 (Function IC) control strobe output
28	ST/MONO	O	C	—	—	Z	L	TUNER STEREO/MONO control output ("L" at STEREO)
29	POWER OFF	O	C	—	—	Z	L	"L" at ON
30	VOL. DOWN	O	C	—	—	Z	L	Electrically-driven volume control output (BA6208S)
31	VOL. UP	O	C	—	—	Z	L	Electrically-driven volume control output (BA6208S)
32	SP-FRONT	O	C	Ed	—	Z	H	Front speaker relay control output
33	VDD	I	—	—	—	—	—	Connect to +5V
34	LED. PRO	O	P	Id	—	L	L	DOLBY PROLOIC indecating LED drive output ("H" at light)
35	LED. STBY	O	P	Id	—	L	L	Standby indecating LED drive output ("H" at light)
36	1G	O	P	Id	S	L	L	FLD control output
37	2G	O	P	Id	S	L	L	FLD control output
38	3G	O	P	Id	S	L	L	FLD control output
39	4G	O	P	Id	S	L	L	FLD control output
40	5G	O	P	Id	—	L	L	FLD control output
41	6G	O	P	Id	—	L	L	FLD control output
42	7G	O	P	Id	—	L	L	FLD control output
43	8G	O	P	Id	—	L	L	FLD control output
44	9G	O	P	Id	—	L	L	FLD control output
45	10G	O	P	Id	—	L	L	FLD control output
46	11G	O	P	Id	—	L	L	FLD control output
47	12G	O	P	Id	—	L	L	FLD control output
48	13G	O	P	Id	—	L	L	FLD control output
49	14G	O	P	Id	—	L	L	FLD control output
50	P (a)	O	P	Id	—	L	L	FLD control output
51	P (b)	O	P	Id	—	L	L	FLD control output
52	P (c)	O	P	Id	—	L	L	FLD control output
53	P (d)	O	P	Id	—	L	L	FLD control output
54	P (e)	O	P	Id	—	L	L	FLD control output
55	P (f)	O	P	Id	—	L	L	FLD control output
56	P (g)	O	P	Id	—	L	L	FLD control output
57	P (h)	O	P	Id	—	L	L	FLD control output
58	P (j)	O	P	Id	—	L	L	FLD control output
59	P (k)	O	P	Id	—	L	L	FLD control output
60	P (m)	O	P	Id	—	L	L	FLD control output
61	P (n)	O	P	Id	—	L	L	FLD control output
62	P (p)	O	P	Id	—	L	L	FLD control output
63	P (q)	O	P	Id	—	L	L	FLD control output
64	P (r)	O	P	Id	—	L	L	FLD control output
65	P (s)	O	P	Id	—	L	L	FLD control output
66	VKK	I	—	—	—	—	—	Connect to Vkk
67	DD. CK	O	N	Eu	—	Z	H	NJU9701G (Delay time) control clock output
68	DD. REQ	O	N	Eu	—	Z	H	NJU9701G (Delay time) control request output
69	DD. DATA	O	N	Eu	—	Z	H	NJU9701G (Delay time) control data output
*70	MODE2	I	N	Id	—	Z	—	Select occurring or no RDS function ("H" at occurring RDS function)*
71	VIDEO A	O	N	Eu	—	Z	H	BU4066 (Video shift) control output ("L" at selecting)
72	VIDEO B	O	N	Eu	—	Z	H	BU4066 (Video shift) control output ("L" at selecting)
73	KEY 5	I	—	Eu	Lv	Z	—	Button input 5
74	KEY 4	I	—	Eu	Lv	Z	—	Button input 4
75	KEY 3	I	—	Eu	Lv	Z	—	Button input 3
76	KEY 2	I	—	Eu	Lv	Z	—	Button input 2
77	KEY 1	I	—	Eu	Lv	Z	—	Button input 1
78	MODE 1	I	—	Eu	Lv	Z	—	Model version change input
79	TU MUTE	O	N	Eu	—	Z	L	Tuner muting output ("L" at muting)
80		O	N	Eu	—	Z	H	Fixed output on "H"

* port is fixed "L" at RDS non-selection mode.

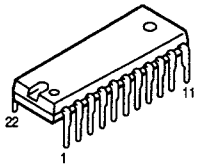
* port is fixed "L" at RDS non-selection mode.

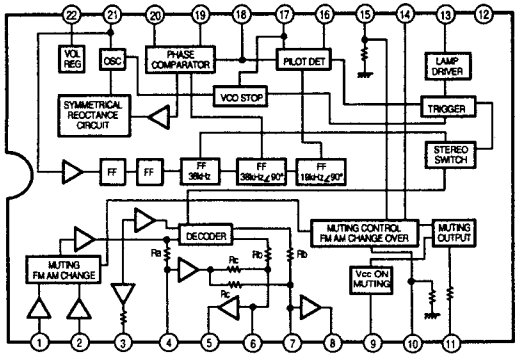
LA1265 (S)
(IC001)



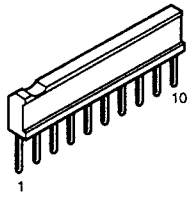


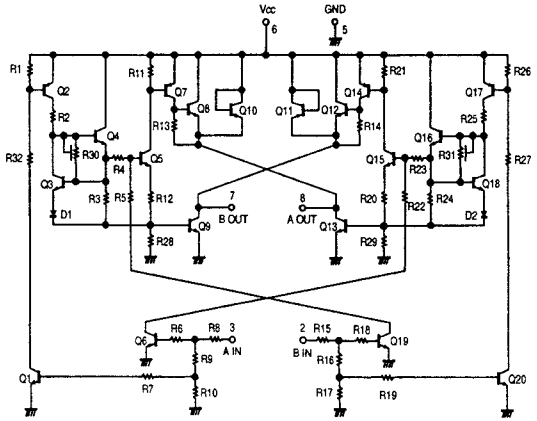
LA3401
(IC002)



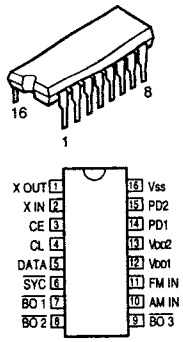


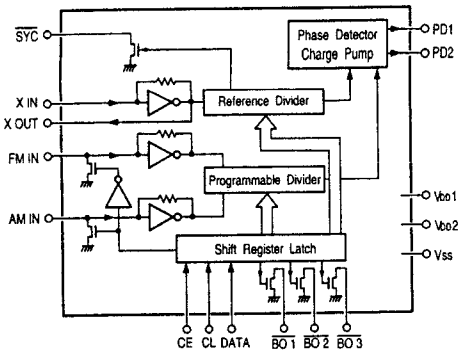
BA6208S
(IC264)





LM7001 (IC003)

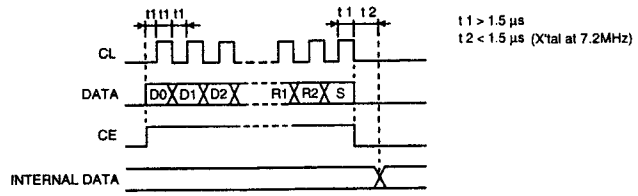




Terminal Description

$\overline{SYC}$	: Clock for controller (400 kHZ).
XIN, XOUT	: X'tal OSC (7.2 MHz).
FMIN, AMIN	: Station oscillation signal input.
CE, CL, DATA	: Data input.
$\overline{BO1}$, $\overline{BO2}$, $\overline{BO3}$,	: Band data output. $\overline{BO1}$ is feasible for time base output (8 Hz).
VDD1, VDD2, VSS	: Power supply. (VDD2 is for back-up).
PD1, PD2	: Charge pump output.

Data Input



t1 > 1.5 µs
t2 < 1.5 µs (X'tal at 7.2MHz)

——— Input from D0.

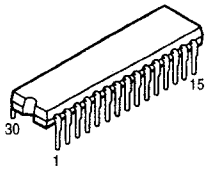
D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	T0	T1	B0	B1	B2	TB	R0	R1	R2	S

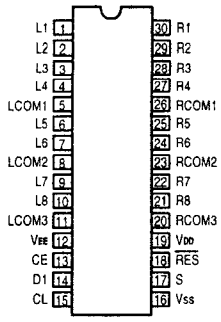
(1) D0 (LSB)~D13 (MSB): Frequency dividend data
For FMIN, use D0~D13; for AMIN, use D4~D13.

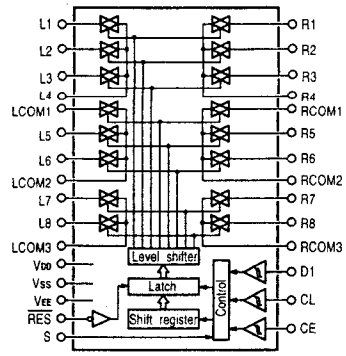
D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	
1	0	1	0	0	0	0	0	0	1	0	1	1	1	→ FMIN Frequency dividend nnumber = 14853
LSB													MSB	
×	×	×	×	0	0	0	0	0	1	0	1	1	1	→ FMIN Frequency dividend nnumber = 928
				LSB									MBS	

(2) T0, T1: For test of LSI (0, 0)

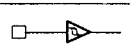
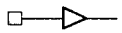
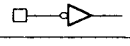
LC78212 (IC102)





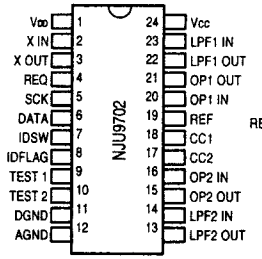


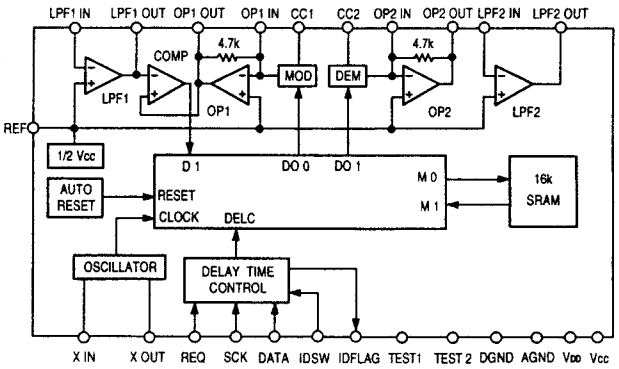
LC78212 Terminal Function

Name of Terminal	I/O	Equivalent Internal Circuit	Function of Terminal
VDD, Vss, VEE			Power terminal.
L1 ~ L8, R1 ~ R8 LCOM1 ~ LCOM4, BCOM1 ~ BCOM4		Refer to block diagram	In/Out terminal of analog switch.
CL, DI, CE	I		Serial data input terminal (Schmidt buffer). CL = Clock input terminal. DI = Data input terminal. CE = Chip enable terminal.
S	I		Selection terminal for using of two. Address will be shifted as per below table when switching S terminal to L or H.
$\overline{RES}$	I		Reset terminal. Condition of analog switch is not fixed at the time of turning on the power. When shift this terminal to L, all analog switches become OFF.

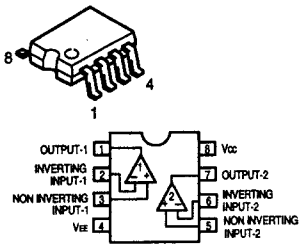
Name of Item	S Terminal	Address			
		A0	A1	A2	A3
LC78212	L	0	1	0	1
	H	1	1	0	1

NJU9702 (IC202)

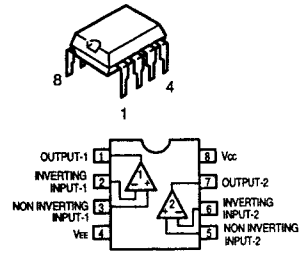




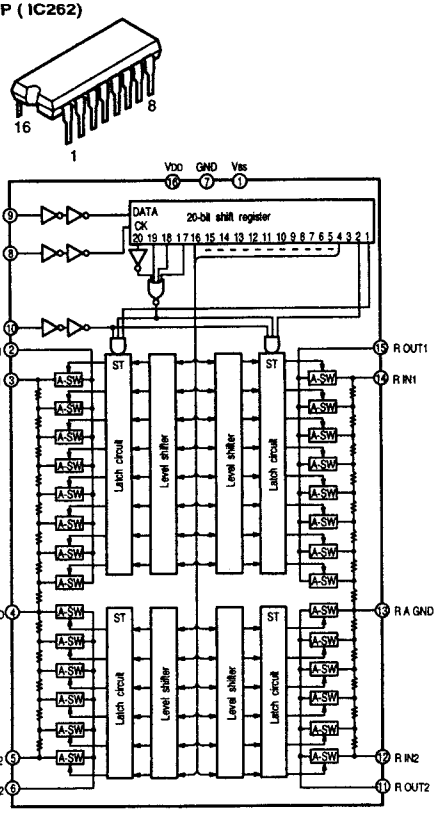
BA4558F (IC101, 103)



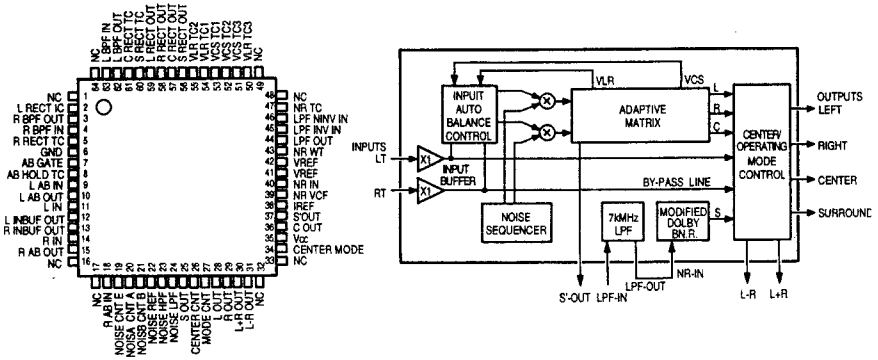
BA4558 (IC261, 263)
BA15218 (IC451)



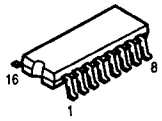
TC9176P (IC262)



NJM2177AF (IC201)



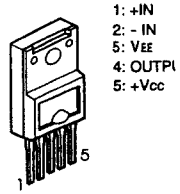
SAA6579T (IC911)



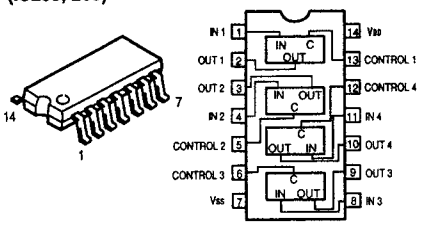
SAA6579T Terminal Function

Pin No.	Symbol	Description
1	QUAR	Quality indication output.
2	RDDA	RDS data output.
3	Vref	Reference voltage output (0.5 VDDA).
4	MUX	Multiplex signal input.
5	VDDA	+5V supply voltage for analog part.
6	VSSA	Ground for analog part (0V).
7	CIN	Subcarrier input to comparator.
8	SCOUT	Sbcarrier output of reconstruction filter.
9	MODE	Oscillation mode/test control input.
10	TEST	Test enable input.
11	VSSD	Ground for digital part (0V).
12	VDDD	+5V supply voltage for digital part.
13	OSCI	Oscillator input.
14	OSCO	Oscillator output.
15	T57	57kHz clock signal output.
16	RDCL	RDS clock output.

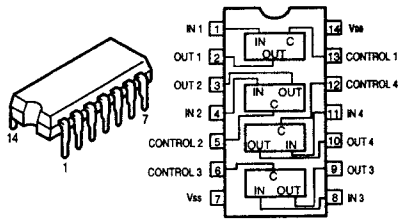
SI-18752 (IC501, 502)



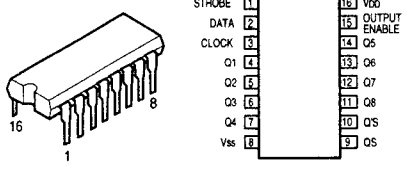
BU4066BCF (IC203, 205)



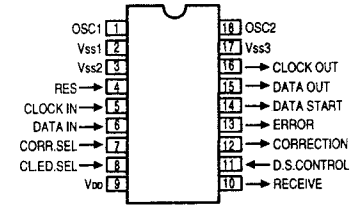
BU4066BC (IC601)



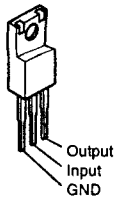
BU4094BC (IC913, 914)



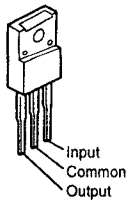
LC7074M (IC912)



NJM7912FA
(IC503,504)

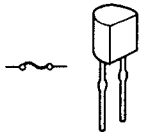


KIA7806PI
(IC551)



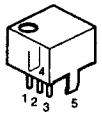
● IC PROTECTORS

ICP-N20 (PR505 ,506)

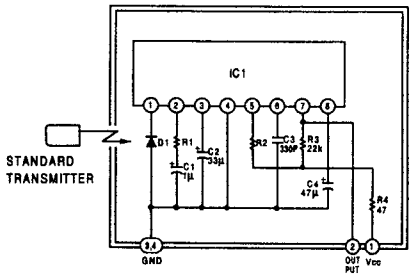


● OTHERS

SBX1610-52 (Remote Control Sensor)



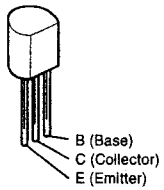
1. Vcc
2. Output
3. GND
4. Case Fin
5. Case Fin



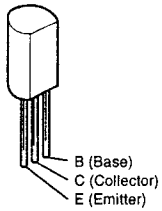
IC1	: CX20106A Chip
D1	: PIN Photo Diode Chip
C1,C2,C4	: Aluminum Electrolytic Capacitor
C3	: SL Characteristic ±5%
R1	: Gain Adjuster
R2	: fo Adjuster ±1% USE
R3, R4	: ±5%

● TRANSISTORS

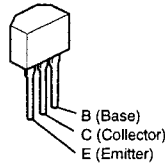
2SA970 (BL)
2SA988 (E/F)
2SC1015 (GR)
2SC1815 (Y),(GR)
2SC1841 (E/F)
2SC2058 (Q)
2SC2878 (A/B)



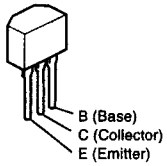
2SB647A (C)
2SD667A (C)



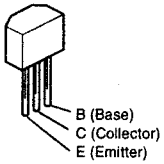
2SC2458



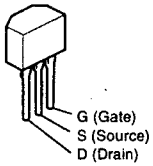
DTA114ES
DTA114TS
DTA143ES
DTC114ES
DTC144ES
DTC144TS
DTC323TS



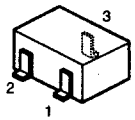
2SA933S (S)
2SC1740 (S)



2SK161

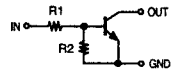


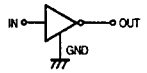
DTA114EUA
DTC143EUA
DTC144EUA



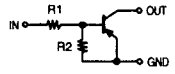
1: GND
2: In
3: Out

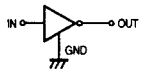
DTC143EUA
DTC144EUA





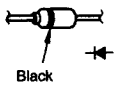
DTA114EUA



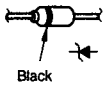


●DIODES (included LED)

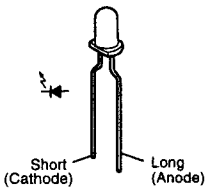
1N4148
1S2471



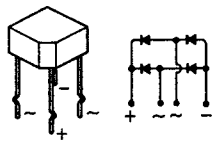
HZ9A3 HZ7B1
HZS6C HZ3C2
HZ27



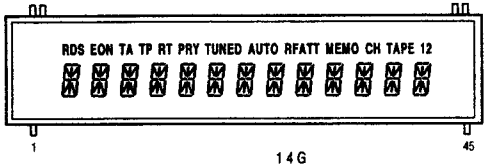
SLR-54

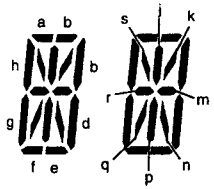


S4VB20



FLD (FL701)


RDS EON TA TP RT PRY TUNED AUTO RFATT MEMO CH TAPE 12
1
45
14G
a b c d e f g h j k m n p qr
RDS EON TA TP RT PRY TUNED STEREO AUTO RFATT MEMO CH TAPE 12
13G 12G 11G 10G 9G 8G 7G 6G 5G 4G 3G 2G 1G



PIN CONNECTION

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Connection	F1	F1	NP	NP	NC	NC	NC	NC	NC	NC	NC	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	14G	13G	12G

Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Connection	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2

Note
1) F1, F2 ——— Filament
2) NP——————— No pin
3) NC——————— No connection
4) DL——————— Datum line
5) 1G~14G ——— Gird

ANODE CONNECTION

		14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	RDS	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1
P2	EON	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2
P3	TA	b	b	b	b	b	b	b	b	b	b	b	b	b	b
P4	TP	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P5	RT	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2
P6	PTY	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1
P7	TUNED	e	e	e	e	e	e	e	e	e	e	e	e	e	e
P8	STEREO	f	f	f	f	f	f	f	f	f	f	f	f	f	f
P9	AUTO	j	j	j	j	j	j	j	j	j	j	j	j	j	j
P10	RFATT	k	k	k	k	k	k	k	k	k	k	k	k	k	k
P11	MEMO	m	m	m	m	m	m	m	m	m	m	m	m	m	m
P12	CH	n	n	n	n	n	n	n	n	n	n	n	n	n	n
P13	TAPE	p	p	p	p	p	p	p	p	p	p	p	p	p	p
P14	1	r	r	r	r	r	r	r	r	r	r	r	r	r	r
P15	2	g	g	g	g	g	g	g	g	g	g	g	g	g	g
P16	3	h	h	h	h	h	h	h	h	h	h	h	h	h	h

NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ■ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN (Type) 14K (Shape and performance) 2E (Power) 182 (Resistance) G (Allowable error) FR (Others)

RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming

★ Resistance

1R2 ⇒ 1.2 ohm
1 : 1-digit effective number.
R : Indicates number of zeros after effective number.
2 : 2-digit effective number, decimal point indicated by R.
• Units: ohm

182 ⇒ 1800 ohm = 1.8 kohm
1 : Indicates number of zeros after effective number.
8 : 2-digit effective number.
2 : 2-digit effective number.
• Units: ohm

● Capacitors

Ex.: CE (Type) 04W (Shape and performance) 1H (Dielectric strength) 2R2 (Capacity) M (Allowable error) BP (Others)

CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF * : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For change and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming

★ Capacity (electrolyte only)

222 ⇒ 2200μF
2 : Indicates number of zeros after effective number.
2 : 2-digit effective number.
• Units: μF.

2R2 ⇒ 2.2μF
2 : 1-digit effective number.
R : 2-digit effective number, decimal point indicated by R.
• Units: μF.

★ Capacity (except electrolyte)

222 ⇒ 2200pF=0.0022μF
2 : (More than 2)—Indicates number of zeros after effective number.
2 : 2-digit effective number.
• Units: pF.

221 ⇒ 220pF
2 : Indicates number of zeros after effective number.
2 : 2-digit effective number.
1 : (0 or 1)
• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

AVR-600/600RD

PARTS LIST OF P.W.BOARD

TUNER P.W.B. SUB. ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC001	263 0891 001	IC LA1265S	
IC002	263 0439 007	IC LA3401	
IC003	262 0719 009	IC LM7001	
IC601	9L2 3631 97	IC 4066BC	
TR001	275 0051 006	Transistor 2SK161	Europe/U.K. model
TR002	273 0434 902	Transistor 2SC2058S-Q	
TR003,004	269 0046 003	Transistor DTA114ES	
TR005	273 0198 002	Transistor 2SC1815Y	
TR006	275 0053 004	Transistor 2SC1815Y	
TR007,008	269 0072 909	Transistor DTC323TS	
TR009	269 0079 902	Transistor DTC144TS	
TR010	269 0080 904	Transistor DTA114TS	
TR601,602	273 0317 906	Transistor 2SC2458-BL	
TR603,604	271 0102 021	Transistor 2SA1015GR	
D001~003	276 0375 002	Diode 1N4118 or 1N4531	
D006	9L2 3980 62T	Diode 1N4001	
D616,617	276 0375 002	Diode 1N4118 or 1N4531	
CAPACITORS GROUP			
C011	254 3056 917	Electrolytic 1 µF/50V	CE04D1H010JBP
C013	9L0 8001 01R	Electrolytic 0.1 µF/50V	CE04W1HR10M SRA
C024	255 1081 000	Mylar film 0.056 µF/50V	CQ93M1H563K ECQM
C035	255 1122 008	Mylar film 0.047 µF/50V	CQ93M1H473K
C043	254 4196 012	Electrolytic 0.22 µF/50V	CE04W1HR22M SRA
C604	254 4254 789	Electrolytic 1000 µF/16V	CE04W1C102M
C607,608	254 4252 079	Electrolytic 1000 µF/10V	CE04W1A102M

OTHER PARTS GROUP				Q'ty
AT001	9LE U000 11	Antena terminal board		1
BL001	9LB H005 31	MW Ant coil		1
CF001	9L2 1349 92	Ceramic filter CFL-SFE10.7MA8A	Except Europe model	1
CF001,002	9LB N001 01	Ceramic filter CFL-SFT10.7MS2A	Europe/ U.K. model	2
CF002	9LB N001 11	Ceramic filter CFL-SFE10.7MS2GA	U.S.A/Canada/ Asia model	1
CF003	9LB P005 01	Ceramic filter BFU450C4N		1
CF004	9LB P004 91	Ceramic filter CMU2-456A16		1
JK601	9LE R002 32	4P US pin jack		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
LF001	9L2 1363 13	Low pass filter FB-75G	Europe/ U.K. model	1
LF002	9L2 1363 14	Low pass filter 19kHz	Europe/ U.K. model	1
LF003	9L2 1363 13	Low pass filter FB-75G	Europe/ U.K. model	1
SW002	9L2 6225 21	Switch SL2-2	Asia model	1
T003	9LB J002 51	AM IF trans		1
T004	9L2 1370 33	FM Det. trans		1
TU001	9L2 4286 51	Tuner pack	Europe/ U.K. model	1
TU001	9LH H000 31	Tuner pack	U.S.A/Canada/ Asia model	1
XT001	9L2 1701 32	Crystal 7.2MHz		1
	9LJ T055 01	Tuner P.W.B. Sub. Ass'y	U.S.A/ Canada model	
	9LJ T055 02	Tuner P.W.B. Sub. Ass'y	Europe model	
	9LJ T055 03	Tuner P.W.B. Sub. Ass'y	U.K. model	
	9LJ T055 06	Tuner P.W.B. Sub. Ass'y	Asia model	

MAIN P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC451	263 0565 007	IC BA15218	
IC551	9LC K044 71	IC KIA7806PI	
IC911	262 1701 906	IC SAA6579T	Europe/U.K. model
IC912	9LC K044 71	IC LC7074M	Europe/U.K. model
IC913,914	262 1968 008	IC BU4094B	
TR301~304	271 0094 016	Transistor 2SA970-BL	
TR305,306	271 0131 021	Transistor 2SA988-E/F	
TR307~312	273 0235 020	Transistor 2SC1841-E/F	
TR313,314	273 0325 008	Transistor 2SC1815-GR	
TR315,316	274 0060 007	Transistor 2SD667A-C	
TR317,318	272 0053 005	Transistor 2SB647A-C	
TR319,320	273 0430 003	Transistor 2SC4278-E/F	
TR321,322	271 0276 009	Transistor 2SA1633-E/F	
TR323,324	273 0235 020	Transistor 2SC1841-E/F	
TR325	271 0131 021	Transistor 2SA988-E/F	
TR351,352	271 0131 021	Transistor 2SA988-E/F	
TR353	273 0303 910	Transistor 2SC1740S-S	
TR354	271 0192 002	Transistor 2SA933-S	
TR355	9L2 3286 25T	Transistor 2SB647C	
TR401	271 0094 016	Transistor 2SA970-BL	
TR403	271 0094 016	Transistor 2SA970-BL	
TR405	271 0131 021	Transistor 2SA988-E/F	
TR407	273 0235 020	Transistor 2SC1841-E/F	
TR409	273 0235 020	Transistor 2SC1841-E/F	
TR411	273 0235 020	Transistor 2SC1841-E/F	
TR413	273 0325 008	Transistor 2SC1815-GR	
TR415	274 0060 007	Transistor 2SD667A-C	
TR417	272 0053 005	Transistor 2SB647A-C	
TR419	273 0430 003	Transistor 2SC4278-E/F	
TR421	271 0276 009	Transistor 2SA1633-E/F	
TR423	273 0235 020	Transistor 2SC1841-E/F	
TR441	273 0253 028	Transistor 2SC2878-B	
TR442	269 0022 904	Transistor DTA143ES	
TR443	269 0018 002	Transistor DTC143ES	
TR481~486	273 0303 910	Transistor 2SC1740S-S	
TR487	271 0192 002	Transistor 2SA933-S	
TR488	269 0040 009	Transistor DTC144ES	
TR551	273 0303 910	Transistor 2SC1740S-S	
TR801	269 0018 002	Transistor DTC143ES	
TR802	273 0303 910	Transistor 2SC1740S-S	
TR803	269 0022 904	Transistor DTA143ES	
TR903,904	269 0022 904	Transistor DTA143ES	
D301~306	276 0375 002	Diode 1N4531 or 1N4148	

Ref. No.	Part No.	Part Name	Remarks
D307~310	9L2 3312 32M	Diode 1S2471B	
D311,312	276 0375 002	Diode 1N4531 or 1N4148	
⚠D351	276 0338 007	Diode S4VB20-4001L20	
D352	276 0375 002	Diode 1N4531 or 1N4148	
D401	276 0375 002	Diode 1N4531 or 1N4148	
D403	276 0375 002	Diode 1N4531 or 1N4148	
D405	276 0375 002	Diode 1N4531 or 1N4148	
D407	9L2 3312 32M	Diode 1S2471B	
D409	9L2 3312 32M	Diode 1S2471B	
D411	276 0375 002	Diode 1N4531 or 1N4148	
D441	276 0375 002	Diode 1N4531 or 1N4148	
D481,482	276 0375 002	Diode 1N4531 or 1N4148	
D801	916 0053 008	Diode 1N4002	
D802~804	276 0375 002	Diode 1N4531 or 1N4148	
D905	276 0375 002	Diode 1N4531 or 1N4148	
D911,912	276 0375 002	Diode 1N4531 or 1N4148	
ZD351	9L2 3321 61M	Zener diode HZ27-04	
ZD551	276 0051 041	Zener diode HZ7B1	
ZD801	276 0299 007	Zener diode HZ3C2	
RESISTORS GROUP			
R315~318	241 2369 052	Carbon film 2.2 kohm 1/4W (NB)	RD14B2E222JNB
R319,320	9LA T011 74R	Fusible resistor 68 ohm 1/4W	RD14B2E680JFR
R321~324	241 2369 023	Carbon film 130 ohm 1/4W (NB)	RD14B2E131JNB
R331,332	241 2321 045	Carbon film220 ohm 1/4W (NB)	RD14B2E221JNB
R333~340	9LA T010 12R	Carbon film 0.22 ohm 1/4W (NB)	RD14B2ER22JNB
R371~374	9LA T010 12R	Carbon film 0.22 ohm 1/4W (NB)	RD14B2ER22JNB
R384	9LA T011 74R	Fusible resistor 68 ohm 1/4W	RD14B222E680JFR
R408,409	241 2369 052	Carbon film 2.2 kohm 1/4W (NB)	RD14B2E222JNB
R410	9LA T011 74R	Fusible resistor 68 ohm 1/4W	RD14B222E680JFR
R411,412	241 2369 023	Carbon film 130 ohm 1/4W (NB)	RD14B2E131JNB
R416	241 2321 045	Carbon film 220 ohm 1/4W (NB)	RD14B2E221JNB
R417~420	9LA T010 12R	Carbon film 0.22 ohm 1/4W (NB)	RD14B2ER22JNB
R431	241 2321 032	Carbon film 4.7 ohm 1/4W (NB)	RD14B2E4R7JNB
R433,434	241 2321 032	Carbon film 4.7 ohm 1/4W(NB)	RD14B2E4R7JNB
R481,482	241 2322 060	Carbon film 1 ohm 1/4W (NB)	RD14B2E010JNB
VR301,302	9L0 1603 23	Semi fixed resistor 5 kohm	
VR401	9L0 1603 23	Semi fixed resistor 5 kohm	
VR451	9LA Y001 81	Variable resister 100 kohm	Blance
VR452	9LA Y001 82	Variable resister 30 kohm	Bass
VR453	9LA Y001 83	Variable resister 10 kohm	Treble

Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C303	253 1193 976	Ceramic 220pF/50V	CK14B1H221K U.S.A/Canada/ Asia model
C304~306	253 1193 976	Ceramic 220pF/50V	CK14B1H221K
C307,308	255 1258 053	Mylar film 6800pF/50V	CQ93M1H682K ECQM
C309,310	HMA 1000 152	Ceramic 100pF/50V	CK14B1H101K
C313~316	255 1120 000	Mylar film 1000pF/50V	CQ93M1H102K ECQM
C317,318	9L0 2478 76R	BC Ceramic cap. 18pF/100V	CK45=2A180J
C321,322	255 4213 972	Mylar film 0.01 µF/50V	CQ93M1H103K ECQM
C325,326	253 1028 009	Ceramic 220pF/500V	CK45B2H221K
C327	255 4213 972	Mylar film 0.01 µF/50V	CQ93M1H103K ECQM
C351,352	9LA L004 71	Electrolytic 8200 µF/50V	CE04W1H822M SMH
C355~357	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C361~364	255 1258 053	Mylar film 6800pF/50V	CQ93M1H682K ECQM Europe/U.K./Asia model
C365,366	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M
C399	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C402	253 1193 976	Ceramic 220pF/50V	CK14B1H221K U.S.A/Canada/ Asia model
C403	253 1193 976	Ceramic 220pF/50V	CK14B1H221K
C404	255 1073 005	Mylar film 0.012 µF/50V	CQ93M1H123K ECQM
C405	HMA 1000 212	Ceramic 33pF /50V	CC14SL1H330J
C407,408	255 1120 000	Mylar film 1000pF/50V	CQ93M1H102K ECQM
C409	9L0 2478 76R	BC Ceramic cap. 18pF/100V	CK45=2A180J Europe/U.K. model
C409	9L0 2478 82R	BC Ceramic cap. 18pF/100V	CK45=2A330J U.S.A/Canada/ Asia model
C411	255 4213 972	Mylar film 0.01 µF/50V	CQ93M1H103K ECQM
C418	255 4213 972	Mylar film 0.01 µF/50V	CQ93M1H103K ECQM
C425	253 1028 009	Ceramic 220pF/500V	CK45B2H221K
C428	255 1120 084	Mylar film 4700pF/50V	CQ93M1H472K ECQM
C429	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M
C431	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C432	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M
C433,434	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C435,436	HMA 1000 152	Ceramic 100pF/50V	CK14B1H101K Europe/U.K./Asia model
C455,456	HMA 1000 152	Ceramic 100pF/50V	CK14B1H101K
C459,460	255 1120 042	Mylar film 2200pF/50V	CQ93M1H222K ECQM
C461,462	255 1087 004	Mylar film 0.18 µF/50V	CQ93M1H184K ECQM
C467,468	255 1073 005	Mylar film 0.012 µF/50V	CQ93M1H123K ECQM
C469,470	255 4187 008	Mylar film 0.056 µF/50V	CQ93P1H563J
C471,472	254 4196 928	Electrolytic 0.33 µF/50V	CE04W1HR33M SRA
C474	253 1025 002	Ceramic 0.022 µF/50V	CK14F1H223Z
C498,499	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C552	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M
C801	254 4250 084	Electrolytic 3300 µF/63V	CE04W1J332M
C802,803	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M
C805	255 1085 006	Mylar film 0.12 µF/50V	CQ93M1H124K ECQM
C807	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M
C911,912	253 3613 001	Ceramic 27pF/50V	CC14SL1H270J Europe/U.K. model
C915	HMA 1000 163	Ceramic 560pF/50V	CK14B1H561K Europe/U.K. model
C919	253 1174 018	Ceramic 0.01 µF/16V	CK14Y1C103M Europe/U.K. model
OTHER PARTS GROUP				Q'ty
CN25A	9LE D007 92	25P FFC connector		1
JK002	9LE R002 41	1P US pin jack		1
JK502	9LE Y005 01	Headphone jack		1
L301,302	9L22273 63	Trap coil 1 µH		2
L401	9L22273 63	Trap coil 1 µH		1
RL481,482	9L2 6413 21	SP Relay 24V		2
SP003	9LE U004 01	Speaker terminal (C)		1
SP301	9LE U003 81	Front SP terminal		1
SW001	9LF E001 81	Speaker switch		1
XT911	9L2 1701 33	Crystal 4.332MHz	U.K. /Asia model	1
XT912	9L2 7920 71	Crystal 4.0MHz	U.K. /Asia model	1
500	9LM F001 71	Insulation sheet		1
	9LJ T055 11	Main AIM P.W.B. Ass'Y	U.S.A/Canada model	
	9LJ T055 12	Main AIM P.W.B. Ass'Y	Europe model	
	9LJ T055 13	Main AIM P.W.B. Ass'Y	U.K. model	
	9LJ T055 16	Main AIM P.W.B. Ass'Y	Asia model	

AUDIO P.W.B. SUB ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	263 0672 903	IC BA4558F	
IC102	9LC P030 51	IC LC78212	
IC103	263 0672 903	IC BA4558F	
IC201	263 0906 006	IC NJM2177AF	
IC202	9LC K050 32	IC NJU9702G	
IC203	262 1875 007	IC BU4066BCF	
IC205	262 1875 007	IC BU4066BCF	
TR201	9LC A004 01R	Transistor DTA114EUA	
TR202,203	9LC A003 91R	Transistor DTC144EUA	
TR205	9LC A003 91R	Transistor DTC144EUA	
TR206	9LC A003 92R	Transistor DTC143EUA	
TR207,208	9LC A003 91R	Transistor DTC144EUA	
TR209	9LC A003 91R	Transistor DTC144EUA	
TR210	273 0303 910	Transistor 2SC1740S-S	
D202-205	276 0375 002	Diode IN4531	
ZD201	276 0463 917	Zener diode HZS6C3L	
RESISTORS GROUP			
R236	244 2007 009	Metal oxide 220ohm 1/4W	RS14B2E221JNB
CAPACITORS GROUP			
C109,110	255 1120 097	Mylar film 5600pF/50V	CQ93M1H562K ECQM
C129	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C130,131	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C201,202	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C204	255 1122 008	Mylar film 0.047 µF/50V	CQ93M1H473K
C205,206	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C208	255 1122 008	Mylar film 0.047 µF/50V	CQ93M1H473K
C213	255 1120 084	Mylar film 4700pF/50V	CQ93M1H472K ECQM
C216	255 1088 003	Mylar film 0.22 µF/50V	CQ93M1H224K ECQM
C220	255 1120 097	Mylar film 5600pF/50V	CQ93M1H562K ECQM
C222	255 1122 008	Mylar film 0.047 µF/50V	CQ93M1H473K
C227-229	255 1088 003	Mylar film 0.22 µF/50V	CQ93M1H224K ECQM
C232	255 1088 003	Mylar film 0.22 µF/50V	CQ93M1H224K ECQM
C233-236	255 1084 007	Mylar film 0.1 µF/50V	CQ93M1H104K ECQM
C237,238	255 1076 002	Mylar film 0.023 µF/50V	CQ93M1H223K ECQM

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
CN10A	9LE Y000 98	10P socket (W)		1
CN13A	9LE Y001 02	13P socket (W)		1
JK101	9LE R002 23	6P US pin jack		1
JK102	9LE R002 22	8P US pin jack		1
L201	9L2 1222 54F	Inductor 120 µH		1
LF101,102	9LB J002 11	Low pass filter	Europe/U.K./ Asia model	2
XT201	399 0223 907	crystal (CSA2.00MG)		1
	9LJ P012 01	Audio AIM P.W.B. Sub Ass'y	U.S.A/Canada model	
	9LJ P012 02	Audio AIM P.W.B. Sub Ass'y	Europe model	
	9LJ P012 03	Audio AIM P.W.B. Sub Ass'y	U.K. model	
	9LJ P012 06	Audio AIM P.W.B. Sub Ass'y	Asia model	

FL P.W.B. SUB ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC261	263 0322 004	IC BA4558	
IC262	262 0625 009	IC TC9176P	
IC263	263 0322 004	IC BA4558	
IC264	263 0972 001	IC BA6208	
IC501,502	263 0855 005	IC SI16752	
IC503,504	263 0516 001	IC NJM7812FA	
IC701	262 2190 011	IC TMP87CM71F-6314	
IC702	9LH N000 31	IC SBX1910-52	Remote cotrol senser
TR531	273 0303 910	Transistor 2SC1740S-S	
TR552	273 0303 910	Transistor 2SC1740S-S	
TR701,702	269 0020 906	Transistor DTC114ES	
D261	276 0375 002	Diode IN4148 or IN4531	
D501	276 0375 002	Diode IN4148 or IN4531	
D551	276 0375 002	Diode IN4148 or IN4531	
D552-557	9L2 3980 65	Diode IN4001-B-D70	
D701,702	276 0375 002	Diode IN4148 or IN4531	
ZD701	9W2 3318 23	Zener diode HZ9A3	
LD701,702	9L2 0984 05	LED SLR54VC3F R	
TH531	9LC J001 51	Thermister	
RESISTORS GROUP			
R296	241 2321 032	Carbon film 4.7 ohm 1/4W (NB)	RD14B2E4R7JNB
R509,510	241 2321 032	Carbon film 4.7 ohm 1/4W (NB)	RD14B2E4R7JNB
R513	241 2322 060	Carbon film 1 ohm 1/4W (NB)	RD14B2E010JNB
R556	241 2375 978	Carbon film 20 ohm 1/4W (NB)	RD14B2E200JNB
R557	242 0074 009	Composition 2.7 Mohm 1/2W	RES SOLID 1/2W 2.7M-J U.S.A./Canada/ Asia model
VR261	9LA Y001 71	Variable resistor	Master volume
CAPACITORS GROUP			
C276	255 1084 007	Mylar 0.1 µF/50V	CQ93M1H104K ECQM
C511,512	255 1084 007	Mylar 0.1 µF/50V	CQ93M1H104K ECQM
C513,514	255 1264 982	Mylar 4700pF/50V	CQ93M1H472K ECQB
C517,518	254 4257 003	Electrolytic 3300 µF/25V	CE04W1E332M
C524	255 1084 007	Mylar 0.1 µF/50V	CQ93M1H104K ECQM
C555	254 4256 091	Electrolytic 2200 µF/25V	CE04W1E222M

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
T501	9LB T005 31	Sub power transformer	U.S.A/Canada/ Asia model	1
T501	9LB T005 32	Sub power transformer	Europe/U.K. model	1
T501	9LB T005 33	Sub power transformer	Asia model	1
△E001-006	9L2 7292 52R	Fuse holder		6
△E701-704	9L2 7292 52R	Fuse holder		4
△E705	9LN J017 11	Fuse holder		1
CN25A	9LE D008 22	25p FFC connector		1
XT701	9L2 7920 71	Crystal (4.0MHz)		1
△P0505,506	268 0074 904	IC protecor		2
FL701	9LD D000 41	FL tube		1
△ [illegible]	9LE Y001 91	AC outlet	U.S.A/Canada/ Europe model	1
SP501	9LE U000 86	4P SP terminal		1
SW702-713	9L2 6396 82R	Tact switch		12
SW719-730	9L2 6396 82R	Tact switch		12
RL501	9L2 6413 21	Speaker relay 24V		1
△ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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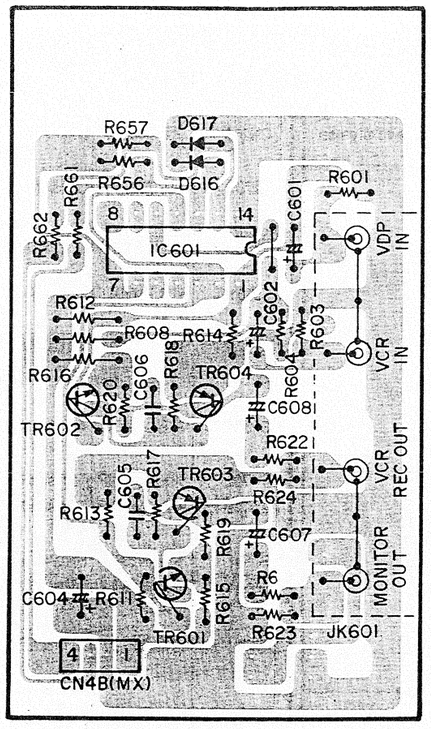
△ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	9LJ T055 21	FL AIM P.W.B. Sub Ass'y	U.S.A/Canada model	1
	9LJ T055 22	FL AIM P.W.B. Sub Ass'y	Europe model	
	9LJ T055 23	FL AIM P.W.B. Sub Ass'y	U.K. model	
	9LJ T055 26	FL AIM P.W.B. Sub Ass'y	Asia model	

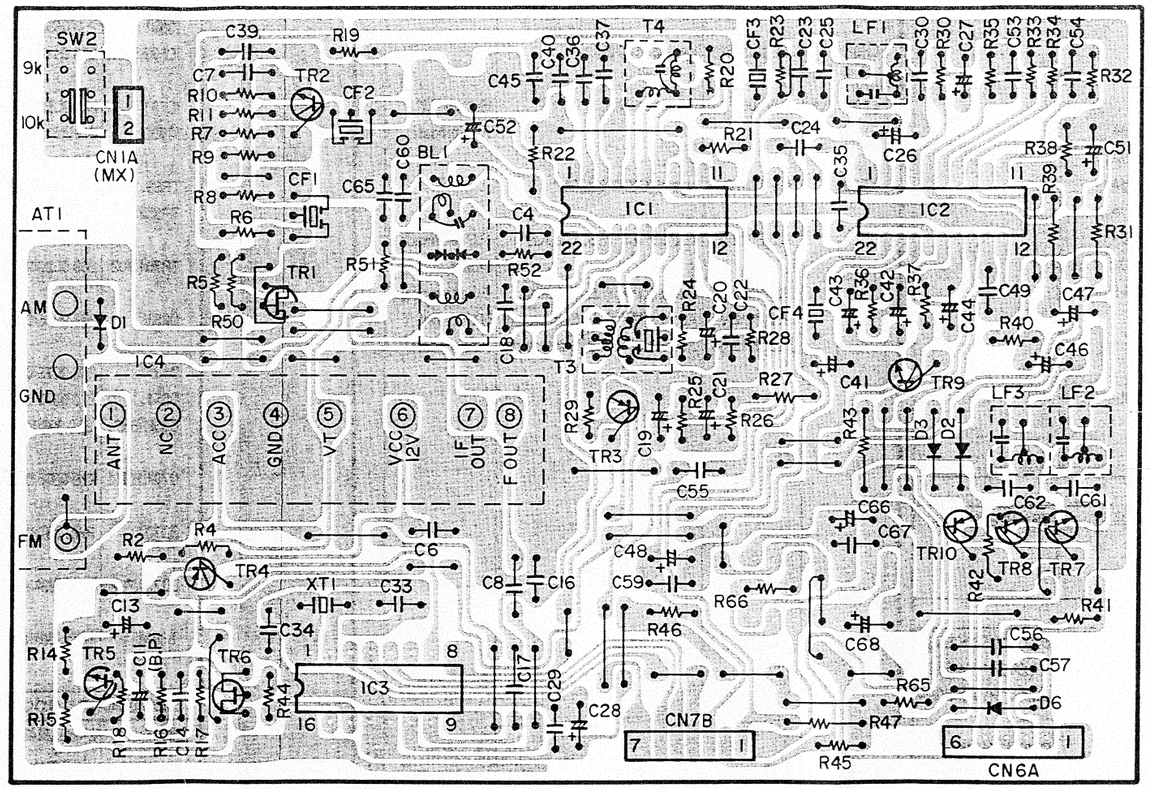
PRINTED WIRING BOARD

1 2 3 4 5 6 7 8

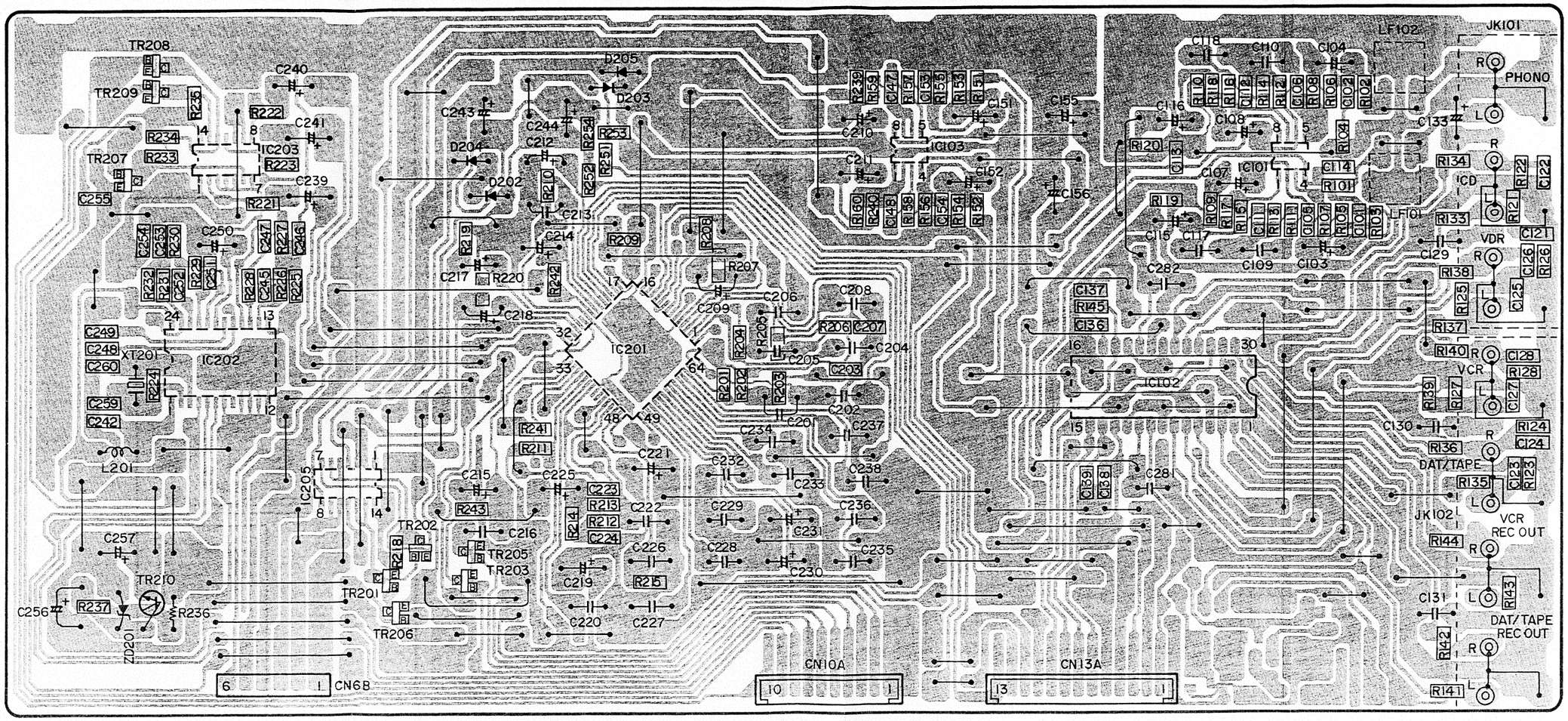
A B C D E

TUNER UNIT





AUDIO UNIT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R220
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IC203
IC202
XT201
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C215
C216
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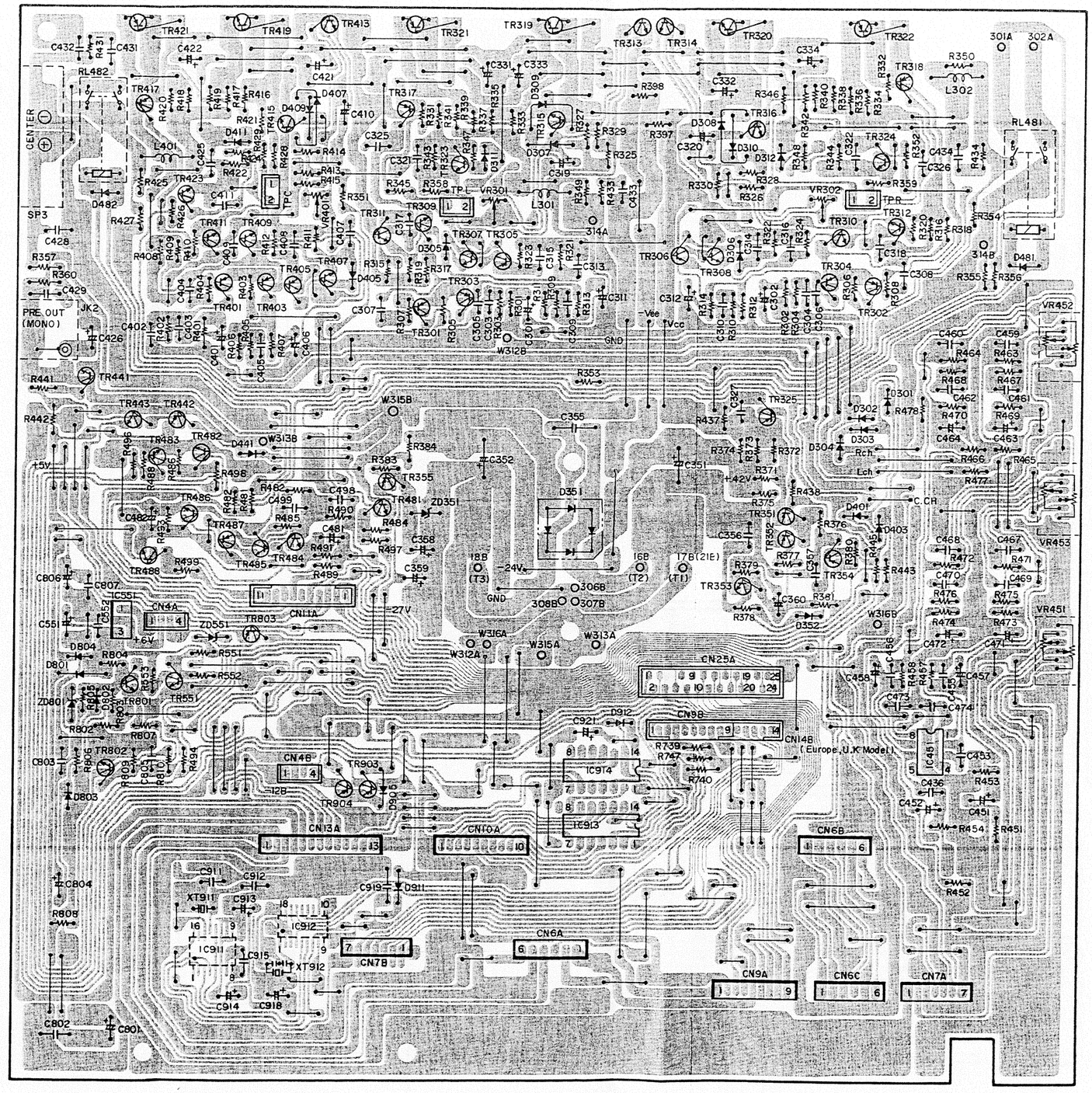
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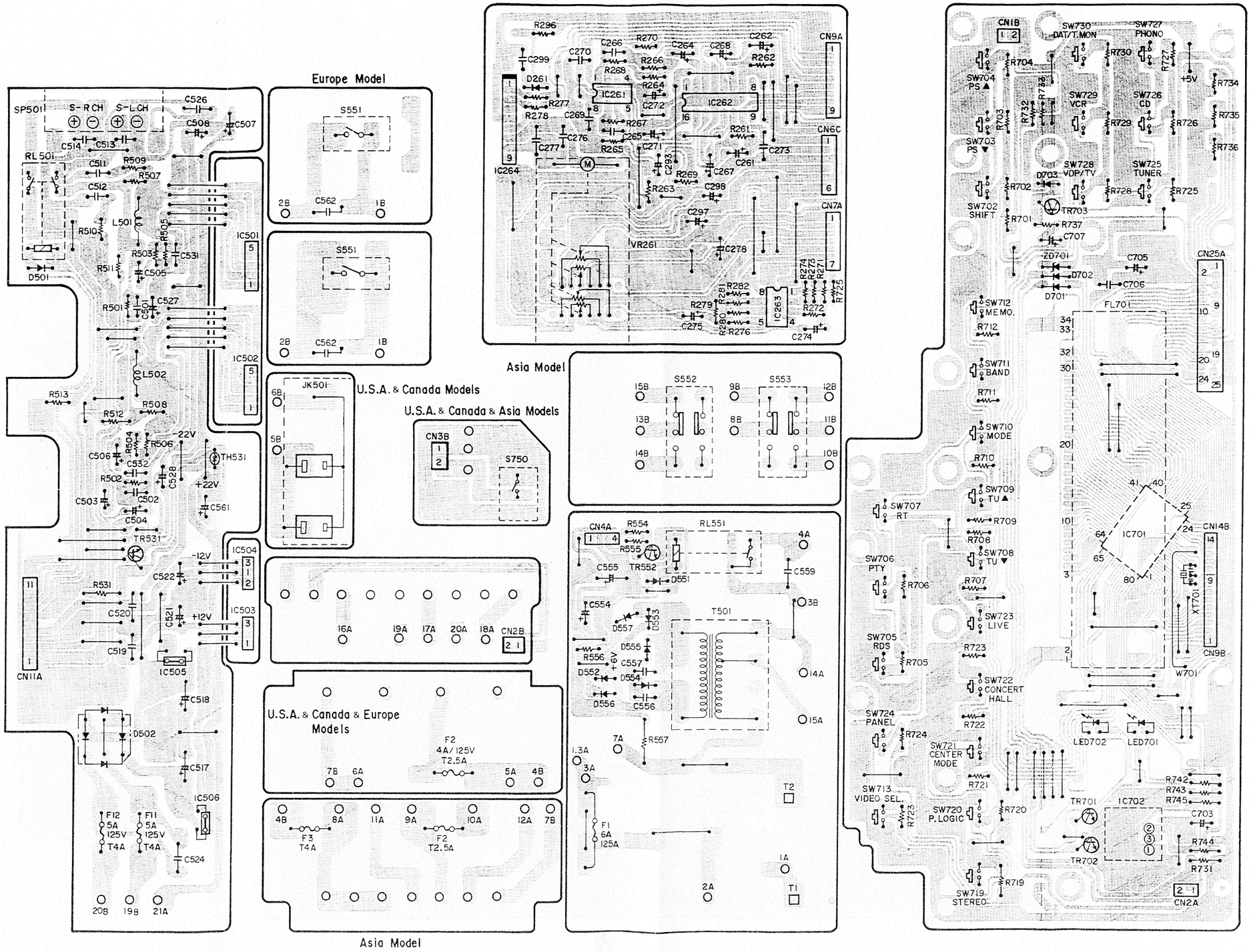
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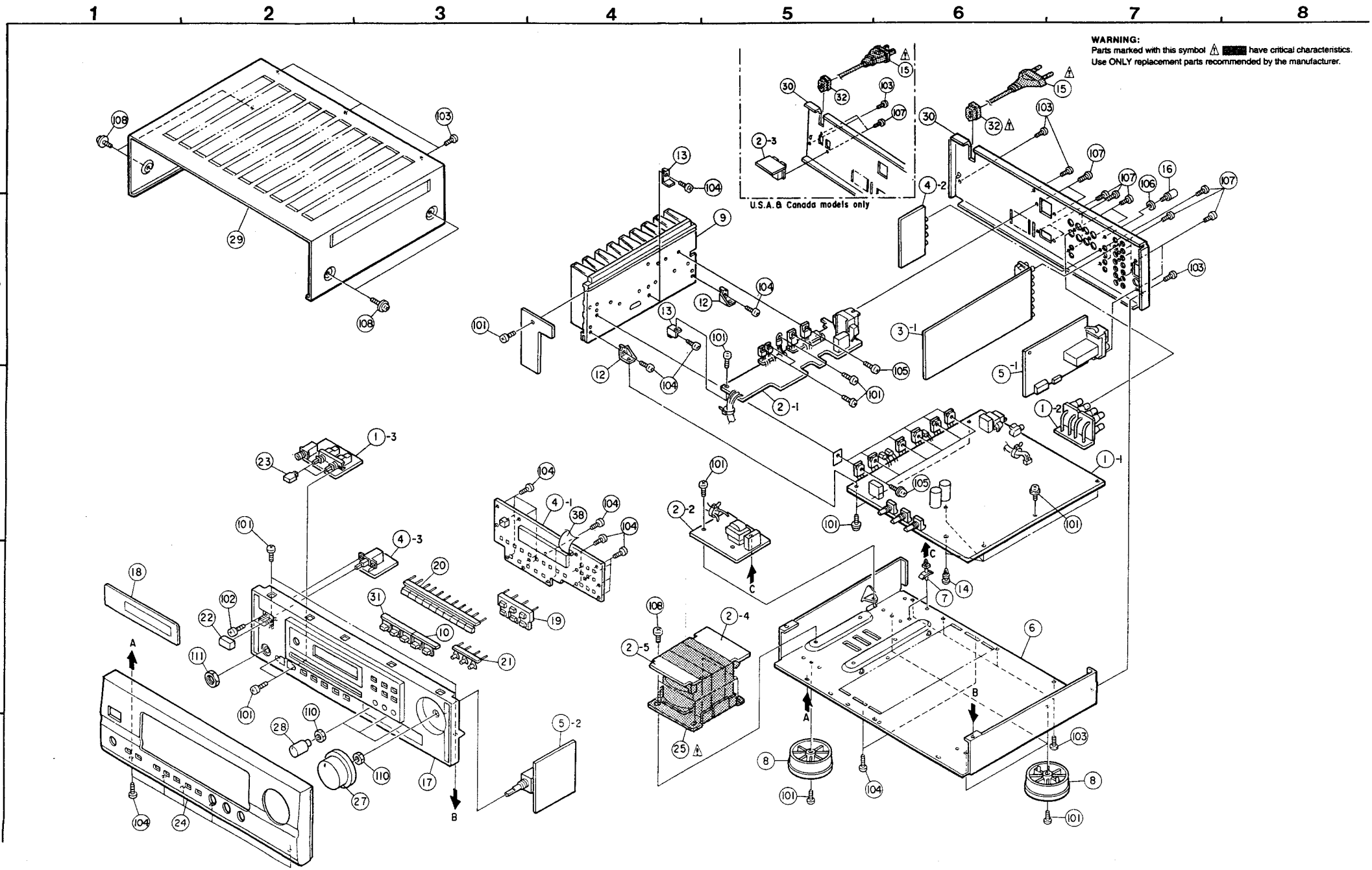
EXPLODED VIEW



PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	Note	Main AIM P.W.B. Ass'Y		1
1-1	—	Main amp.P.W.B unit		
1-2	—	Front SP P.W.B. unit		
1-3	—	H/P SW. P.W.B. unit		
2	Note	Audio AIM P.W.B. Sub Ass'y		1
2-1	—	Rear amp. P.W.B. unit		
2-2	—	Power supply P.W.B. unit		
2-3	—	AC outlet P.W.B. unit	U.S.A./Canada model	
2-4	—	Terminal 1 P.W.B. unit		
2-5	—	Terminal 2 P.W.B. unit		
★ 2-6	—	Multe volt sel.P.W.B. unit	Asia model only	
3	—	Surround P.W.B. Sub Ass'y		1
3-1	—	Surround P.W.B. unit		
4	Note	FL AIM P.W.B. Sub Ass'y		1
4-1	—	FLD P.W.B. unit		
4-2	—	Video P.W.B. unit		
4-3	—	Power S.W. P.W.B. unit		
5	Note	Tuner AIM P.W.B. Sub. Ass'y		1
5-1	—	Tuner P.W.B. unit		
5-2	—	M. Volume P.W.B. unit		
6	9LQ A004 81	Bottom chassis		1
7	—	P.W.B. holder		2
8	104 0282 007	Foot		4
9	—	Power radiator		1
10	9LP C018 01	VS Button		1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	—	P.W.B. bracket(A)		2
13	—	L bracket		2
14	—	Cord spacer (L=8)		4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	—	Terminal Ass'y		1
17	Note	Inner panel		1
18	9LP H035 61	Clear panel		1
19	9LP C017 51	Function betton		1
20	9LP C017 61	Tuner button (10)		1
21	9LP C017 71	Tuning button		1
22	9LP C017 81	Power button		1
23	9LP C017 91	SP Button		2
24	Note	Front panel		1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26				
27	9LP C017 31	Vol. Knob		1
28	9LP C017 41	Bass knob		3
29	9LQ A004 91	Top cover		1
30	Note	Rear plate		1
31	9LP C013 11	RDS Button		1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name	Remarks	Q'ty
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	9LE K001 15	25P FFC Wire L=250mm	W025	1
39				
SCREWS				
101	9L8 6994 10	Screw BT BH 3×10 BBC		27
102	9L8 6994 08	Screw BT BH 3×8 BBC		2
103	9L8 6714 06	Screw 3×6 DT		4
104	9L8 6914 10	Screw BT DT 3×10		40
105	9L8 6914 12	Screw BT 3×12		6
106	477 0018 001	Washer (P-87)		1
107	9L8 6794 06	Screw 3×6 DT BIND		9
108	9L	Screw 4×6 DT BIND		8
109	9L8 6993 08	Screw 2.6×8 BIND B	Asia model only	4
110	475 6138 002	NUT M9×0.75		4
111	475 6124 003	NUT M12×1		1
PACKING & ACCESSORIES				
121	Note	Poly. sack		1
122	9L2 7593 41	AM Loop ant.		1
123	9LE F021 31	SPF FM Ant. connector		1
124	9LE Y002 81	Edison plug adapter	Asia model only	1
125	Note	Instructions manual		1
126	399 0292 006	Remote controller (RC-195)		1
127	Note	Coarton box		1
128	9LS P029 51	Cushion		2
129	Note	Poly. sack		1
130	9L3 6275 65	Poly. bag		1

ADDENDUM PARTS LIST

PARTS LIST OF EXPLODED VIEW

Ref. No.	Parts Name	Part No.			
		U.S.A./Canada	Europe	U.K	Asia
1	Main AIM P.W.B. Ass'Y	9LJ T055 11	9LJ T055 12	9LJ T055 13	9LJ T055 16
2	Audio AIM P.W.B. Sub Ass'y	9LJ P012 01	9LJ P012 02	9LJ P012 03	9LJ P012 06
4	FL AIM P.W.B. Sub Ass'y	9LJ T055 21	9LJ T055 22	9LJ T055 23	9LJ T055 26
5	Tuner AIM P.W.B. Sub. Ass'y	9LJ T055 01	9LJ T055 02	9LJ T055 03	9LJ T055 06
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	Inner panel	9LP H035 51	9LP H035 52	9LP H035 52	9LP H035 52
24	Front panel	9LP H035 41	9LP H035 42	9LP H035 42	9LP H035 43
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	Rear plate	9LQ A005 01	9LQ A005 02	9LQ A005 03	9LQ A005 04
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

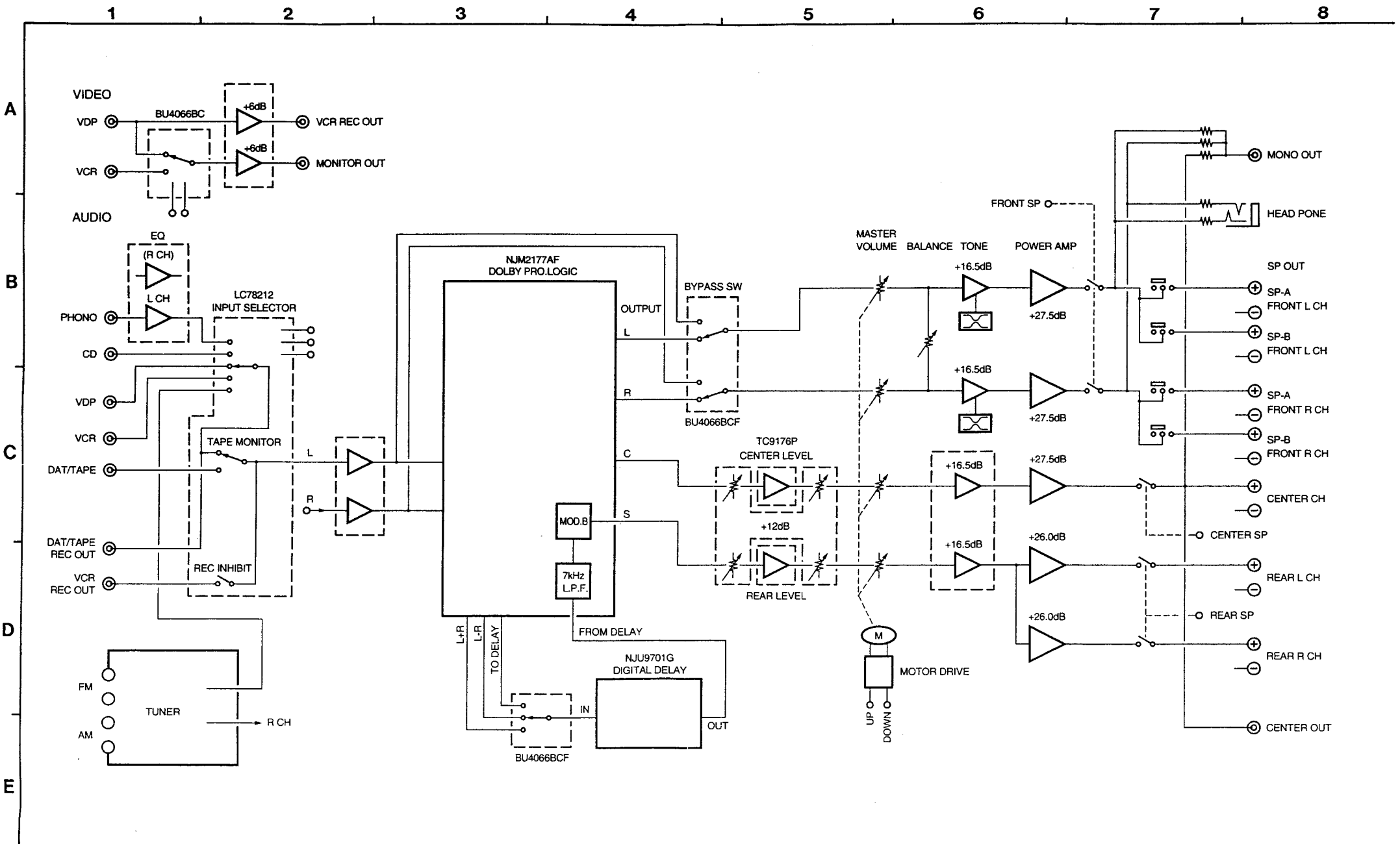
PACKING AND ACCESSORIES

Ref. No.	Parts Name	Part No.			
		U.S.A./Canada	Europe	U.K	Asia
121	Poly. sack	9L3 6402 14W	9L3 6402 14W	9L3 6402 13W	9L3 6402 14W
125	Instructions manual	9LQ R064 51	9LQ R064 52	9LQ R064 53	9LQ R064 54
127	Coarton box	9LS G047 01	9LS G047 02	9LS G047 03	9LS G047 04
129	Poly. sack	9L3 6174 77	9L3 6174 77	9LS U010 13	9L3 6174 77

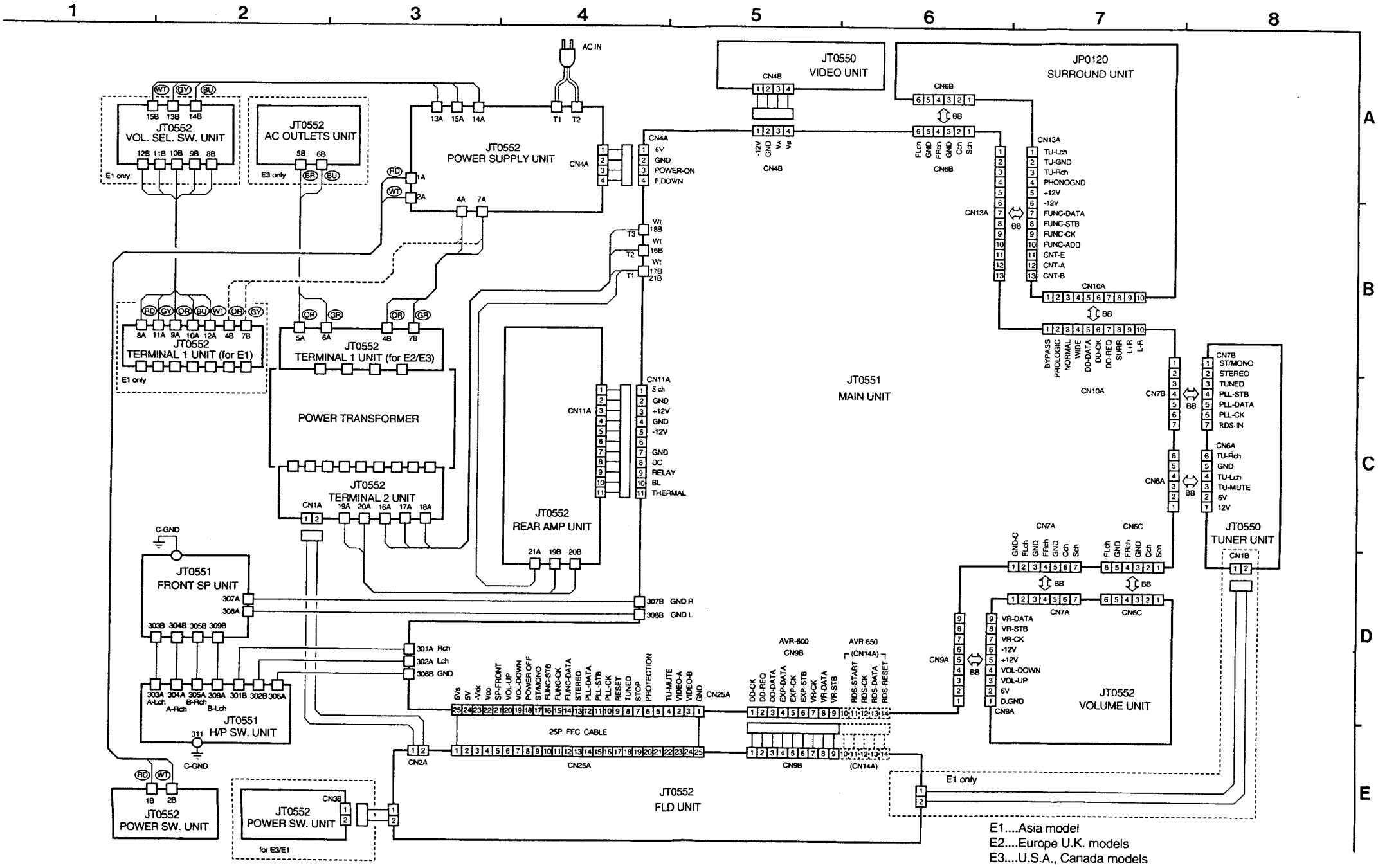
- When ordering of part, clearly indicate "1" (!) to avoid mis-supplying.
- Ordering part without atating its part number can not be supplied.
- part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/6w,1/4w Type in the P.W. Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

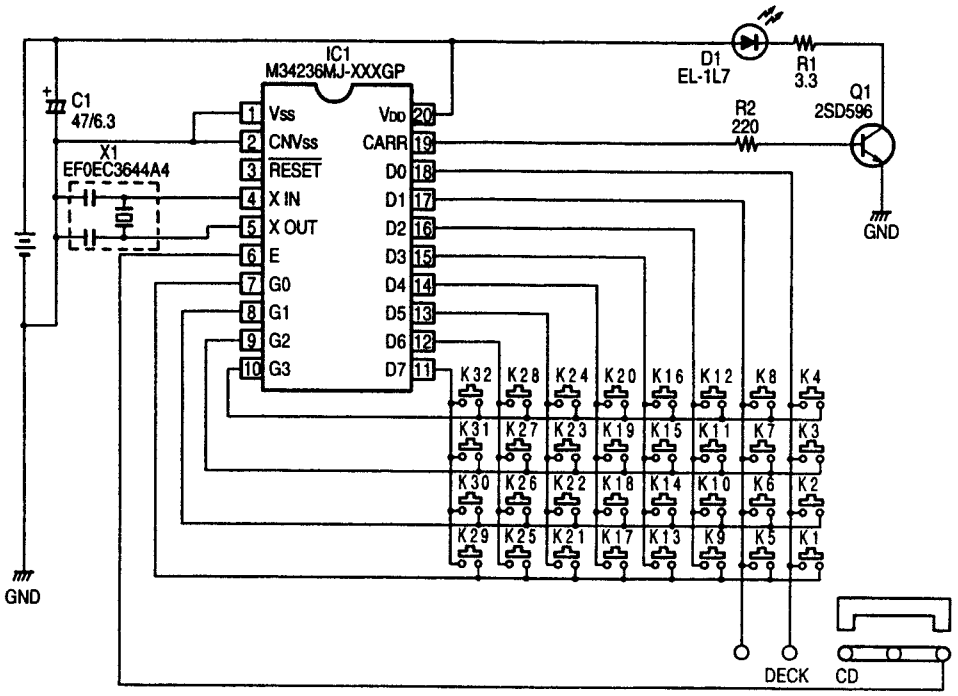
BLOCK DIAGRAM



WIRING DIAGRAM



REMOTE CONTROL UNIT (RC-195)



RC-195 Transmittingh Code Table

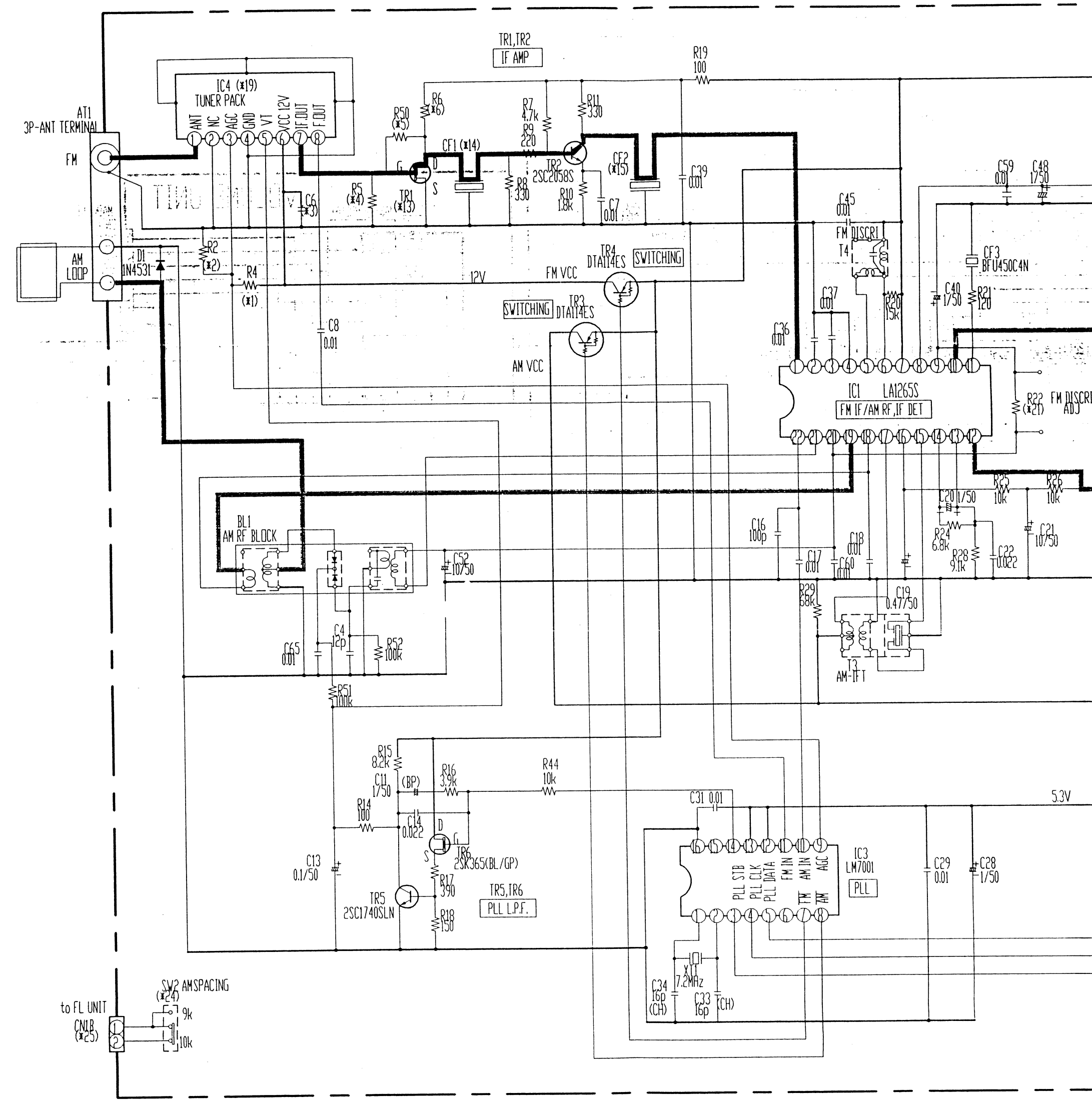
CD

KEY No.	Function	Classification	System address					Data code						Extension		Mask	Judge
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	K
1	POWER ON/OFF	AV. AMP	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0
2	DISK SKIP+	CD	0	0	0	1	0	1	1	0	1	0	1	1	0	0	0
3	STOP ■	CD	0	0	0	1	0	0	1	1	1	1	0	1	0	0	0
4	PLAY ▶	CD	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0
5	AUTO SEARCH ⏮	CD	0	0	0	1	0	1	0	0	1	1	0	1	0	0	0
6	PAUSE	CD	0	0	0	1	0	1	0	1	1	1	0	1	0	0	0
7	AUTO SEARCH ⏭	CD	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0
8	PRESET. DOWN	TUNER	0	0	1	1	0	1	0	1	0	1	0	1	1	0	0
9	PRESET CH. UP	TUNER	0	0	1	1	0	0	1	1	0	1	0	1	1	0	0
10	CD	AV. AMP	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0
11	PHONO	AV. AMP	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0
12	SHIFT	TUNER	0	0	1	1	0	1	0	1	1	0	0	1	1	0	0
13	TUNER	AV. AMP	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0
14	VCR	AV. AMP	0	1	0	0	0	1	0	1	1	0	0	1	1	0	0
15	VDP/DBS	AV. AMP	0	1	0	0	0	0	1	0	1	0	0	1	1	0	0
16	STEREO	AV. AMP	0	1	0	0	0	1	1	1	0	0	1	1	1	0	0
17	SURR. MODE	AV. AMP	0	1	0	0	0	0	1	1	0	0	1	1	1	0	0
18	V. AUX/GAME	AV. AMP	0	1	0	0	0	0	0	1	1	0	0	1	1	0	0
19	DAT/TAPE MONITOR	AV. AMP	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0
20	T. TONE	AV. AMP	0	1	0	0	0	0	1	0	1	0	1	1	1	0	0
21	DELAY+	AV. AMP	0	1	0	0	0	1	0	0	1	0	1	1	1	0	0
22	MUTING	AV. AMP	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0
23	SCREEN	AV. AMP	0	1	0	0	0	1	1	1	1	1	0	1	1	0	0
24	PANEL	AV. AMP	0	1	0	0	0	0	1	1	1	1	0	1	1	0	0
25	CENTER VOLUME UP	AV. AMP	0	1	0	0	0	1	0	1	0	1	1	1	1	0	0
26	CENTER VOLUME DOWN	AV. AMP	0	1	0	0	0	0	1	1	0	1	1	1	1	0	0
27	REAR VOLUME UP	AV. AMP	0	1	0	0	0	1	1	0	0	1	1	1	1	0	0
28	REAR VOLUME DOWN	AV. AMP	0	1	0	0	0	0	0	1	0	1	1	1	1	0	0
29	MASTER VOLUME UP	AV. AMP	0	1	0	0	0	1	0	0	0	1	1	1	1	0	0
30	MASTER VOLUME DOWN	AV. AMP	0	1	0	0	0	0	1	0	0	1	1	1	1	0	0

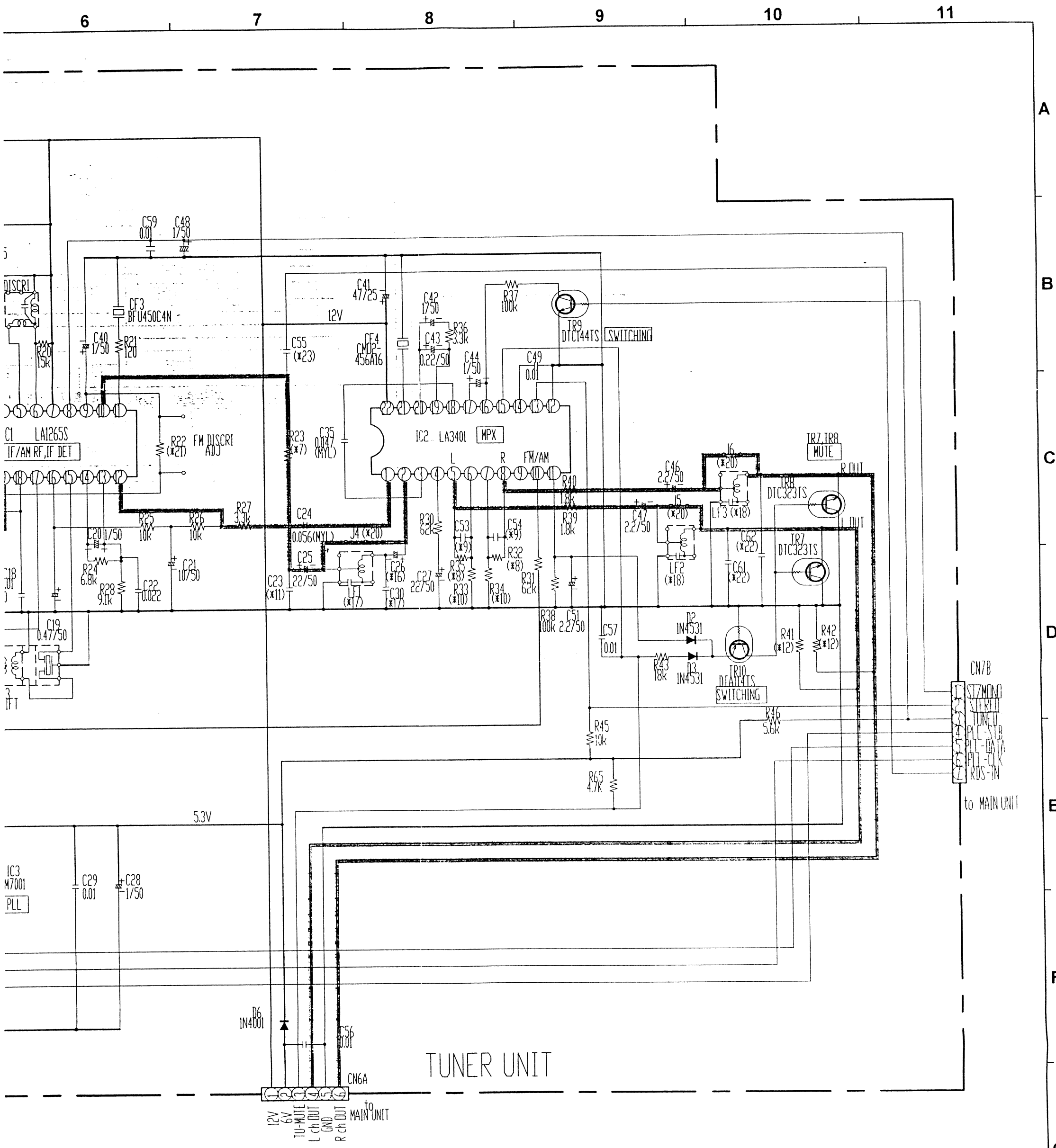
DECK

KEY No.	Function	Classification	System address					Data code						Extension		Mask	Judge
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	K
1	POWER ON/OFF	AV. AMP	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0
2	PLAY ◀	DECK	0	0	1	0	0	1	1	1	0	1	0	1	0	0	0
3	STOP ■	DECK	0	0	1	0	0	0	1	1	1	1	0	1	0	0	0
4	PLAY ▶	DECK	0	0	1	0	0	0	0	1	1	1	0	1	0	0	0
5	REW ◀◀	DECK	0	0	1	0	0	1	1	0	1	1	0	1	0	0	0
6	A/B	DECK	0	0	1	0	0	1	1	0	0	1	0	1	0	0	0
7	FF ▶▶	DECK	0	0	1	0	0	0	1	0	1	1	0	1	0	0	0
8	PRESET CH. DOWN	TUNER	0	0	1	1	0	1	0	1	0	1	0	1	1	0	0
9	PRESET CH. UP	TUNER	0	0	1	1	0	0	1	1	0	1	0	1	1	0	0
10	CD	AV. AMP	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0
11	PHONO	AV. AMP	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0
12	SHIFT	TUNER	0	0	1	1	0	1	0	1	1	0	0	1	1	0	0
13	TUNER	AV. AMP	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0
14	VCR	AV. AMP	0	1	0	0	0	1	0	1	1	0	0	1	1	0	0
15	VDP/DBS	AV. AMP	0	1	0	0	0	0	1	0	1	0	0	1	1	0	0
16	STEREO	AV. AMP	0	1	0	0	0	1	1	1	0	0	1	1	1	0	0
17	SURR. MODE	AV. AMP	0	1	0	0	0	0	1	1	0	0	1	1	1	0	0
18	V. AUX/GAME	AV. AMP	0	1	0	0	0	0	0	1	1	0	0	1	1	0	0
19	DAT/TAPE MONITOR	AV. AMP	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0
20	T. TONE	AV. AMP	0	1	0	0	0	0	1	0	1	0	1	1	1	0	0
21	DELAY+	AV. AMP	0	1	0	0	0	1	0	0	1	0	1	1	1	0	0
22	MUTING	AV. AMP	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0
23	SCREEN	AV. AMP	0	1	0	0	0	1	1	1	1	1	0	1	1	0	0
24	PANEL	AV. AMP	0	1	0	0	0	0	1	1	1	1	0	1	1	0	0
25	CENTER VOLUME UP	AV. AMP	0	1	0	0	0	1	0	1	0	1	1	1	1	0	0
26	CENTER VOLUME DOWN	AV. AMP	0	1	0	0	0	0	1	1	0	1	1	1	1	0	0
27	REAR VOLUME UP	AV. AMP	0	1	0	0	0	1	1	0	0	1	1	1	1	0	0
28	REAR VOLUME DOWN	AV. AMP	0	1	0	0	0	0	0	1	0	1	1	1	1	0	0
29	MASTER VOLUME UP	AV. AMP	0	1	0	0	0	1	0	0	0	1	1	1	1	0	0
30	MASTER VOLUME DOWN	AV. AMP	0	1	0	0	0	0	1	0	0	1	1	1	1	0	0

SCHEMATIC DIAGRAM (1/5)



	*1	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12	*13	*14	*15	*16	*17	*18	*19	*20	*21	*22	*2
	R4	R2	C6	R5	R50	R6	R23	R32,R35	C53,C54	R33,R34	C23	R41,R42	TR1	CF1	CF2	C26	LF1,C30(560p)	LF2,LF3	IC4	J4,5,6	R22	C61,C62	C5
Europe & U.K. models	10k	5.6k	0.01	390	---	330	1.2k	150k	330p	180k	---	4.7k	2SK161	SFT10.7 MS2-A	SFT10.7 MS2-A	22/50	○	○	4-TUNE	---	39k	0.0047	120
U.S.A. & Canada models	---	---	---	1k	100	---	JUMPER	100k	680p	120k	100p	6.8k	---	SFE10.7 MA-8	SFE10.7 MS2G-A	---	---	---	3-TUNE	JUMPER	18k	---	--
Asia model	---	---	---	1k	100	---	JUMPER	100k	680p	120k	100p	6.8k	---	SFT10.7 MS2-A	SFT10.7 MS2-A	---	---	---	3-TUNE	JUMPER	39k	---	--



※17	※18	※19	※20	※21	※22	※23	※24	※25
3(0.560p)	LF2,LF3	IC4	J4,5,6	R22	C61,C62	C55	SW2	CN1B
○	○	4-TUNE	---	39k	0.0047	120p	---	---
---	---	3-TUNE	JUMPER	18k	---	---	---	---
---	---	3-TUNE	JUMPER	39k	---	---	○	○

+B LINE

SIGNAL LINE

NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

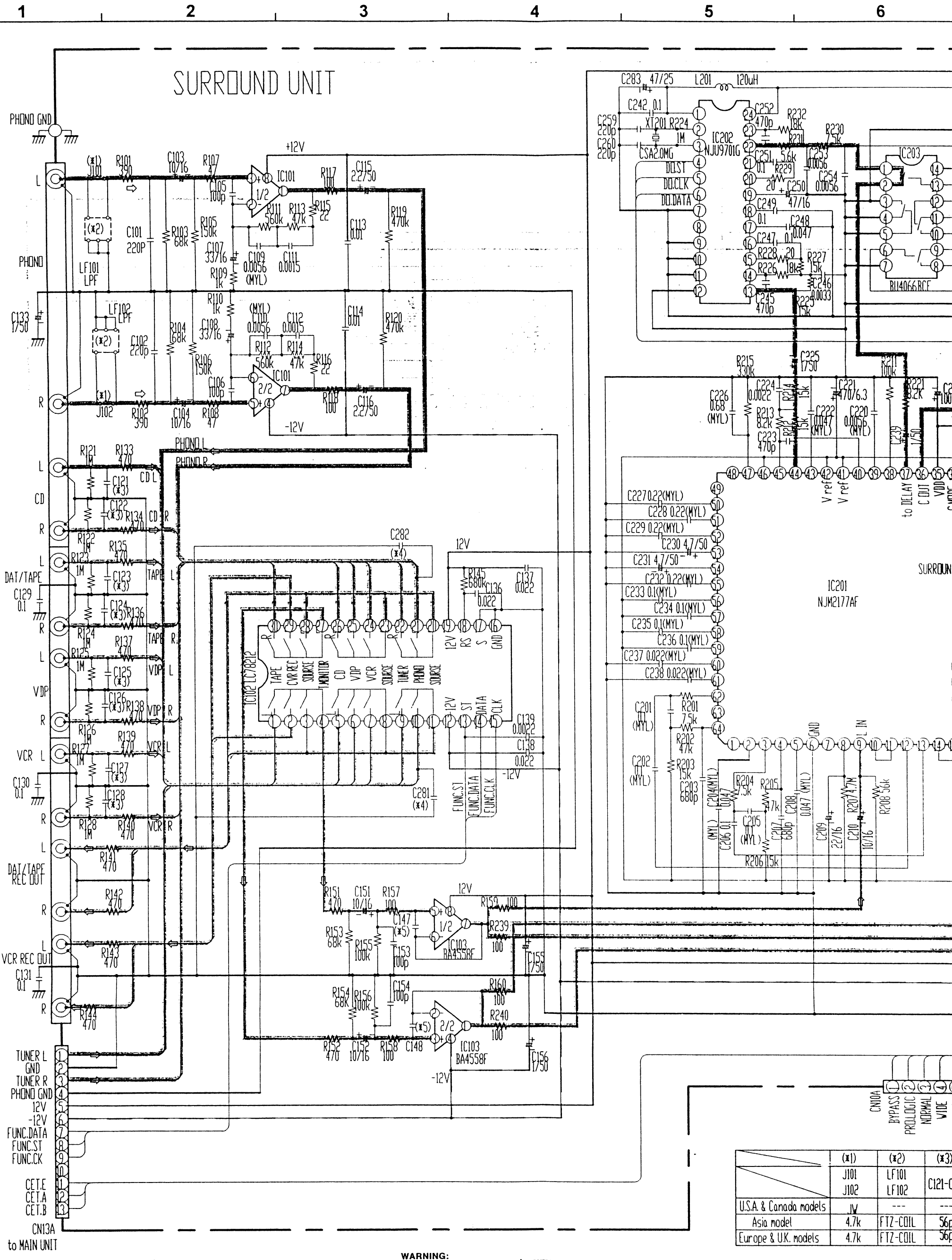
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (2/5)



	(*1)	(*2)	(*3)
	J101 J102	LF101 LF102	C121-C
U.S.A. & Canada models	JW	---	---
Asia model	4.7k	FTZ-COIL	56p
Europe & U.K. models	4.7k	FTZ-COIL	56p

NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:

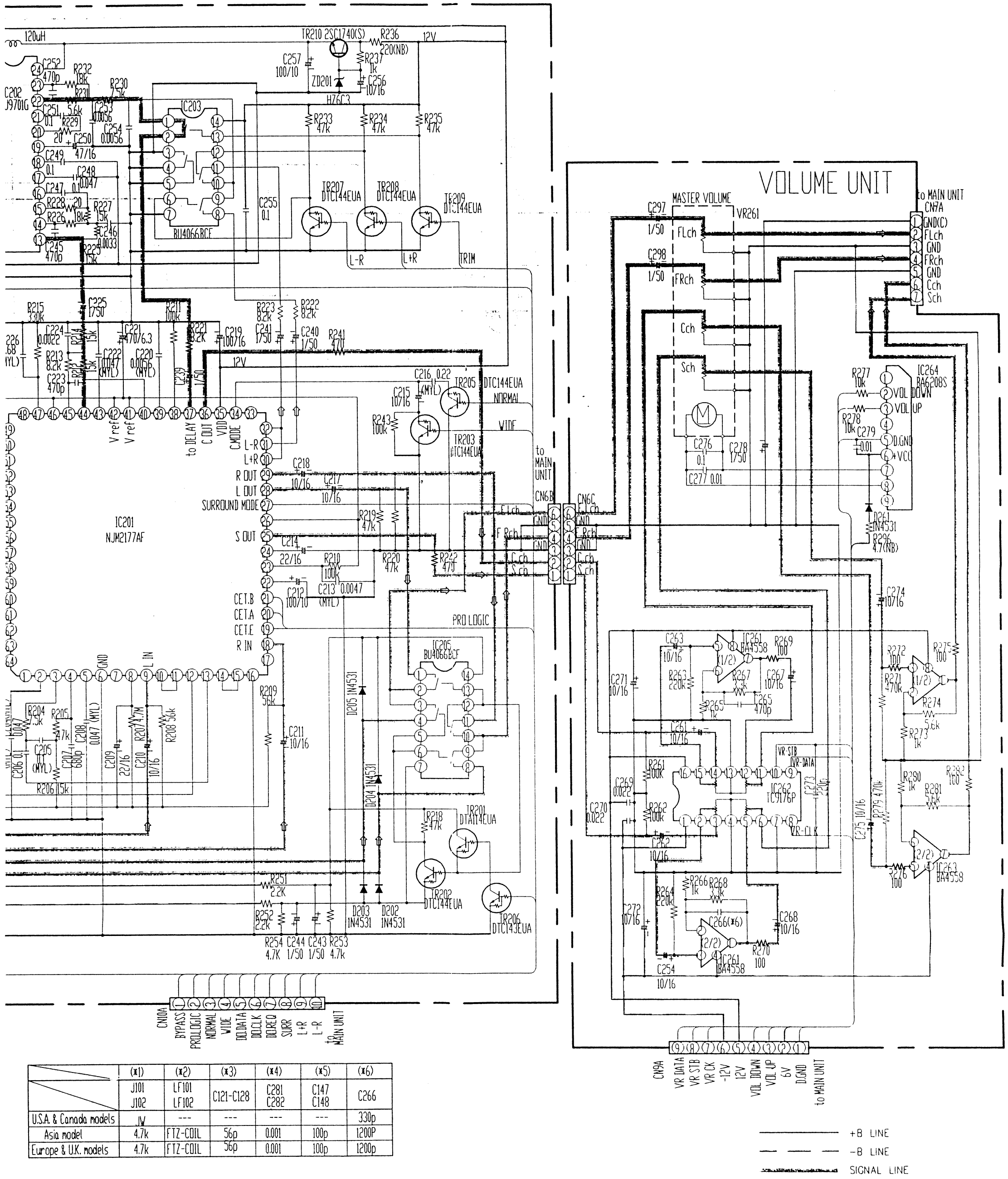
Parts marked with this symbol ⚠ ▒▒ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

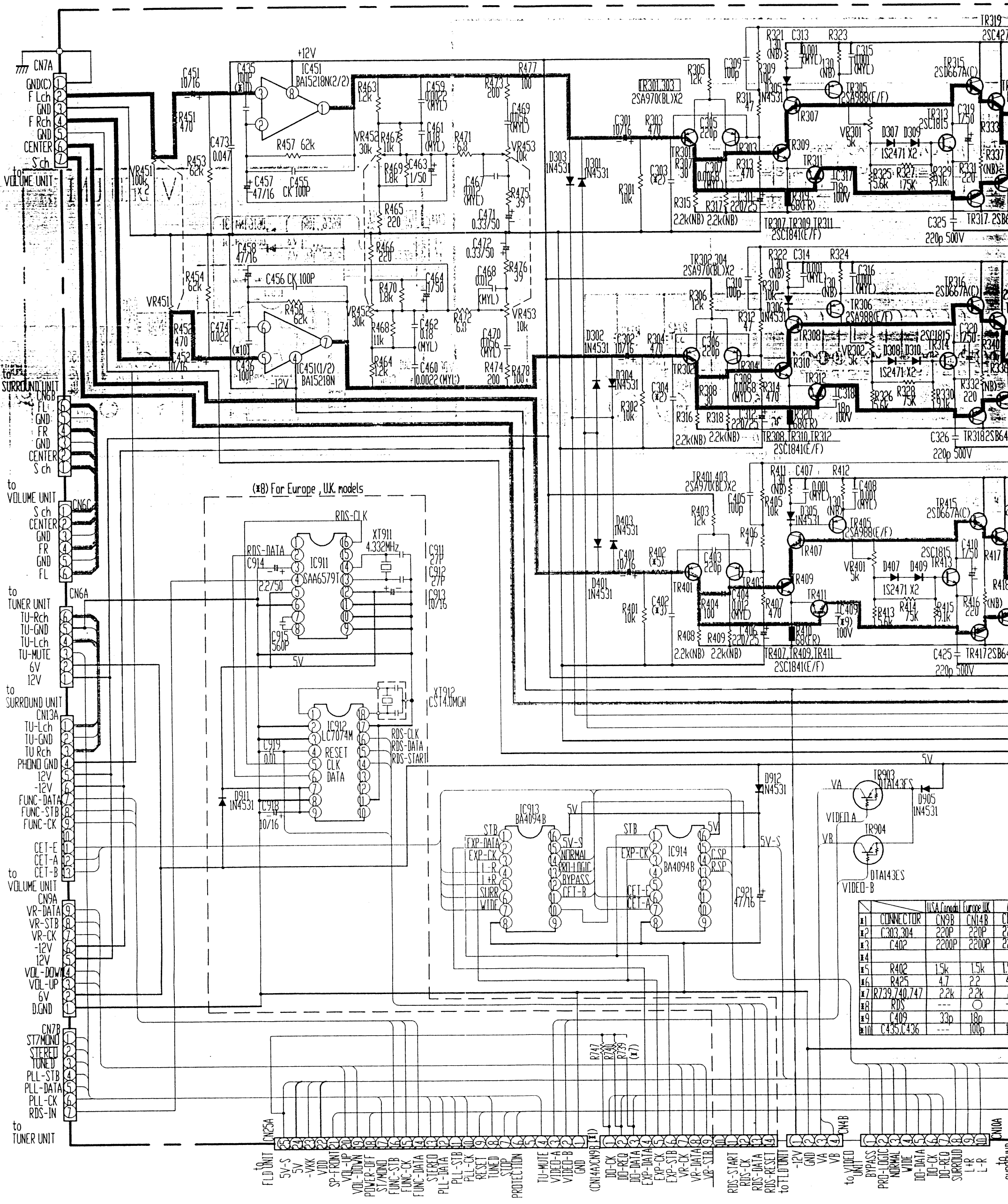
WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.



	(*1)	(*2)	(*3)	(*4)	(*5)	(*6)
	J101 J102	LF101 LF102	C121-C128	C281 C282	C147 C148	C266
U.S.A. & Canada models	JW	---	---	---	---	330p
Asia model	4.7k	FTZ-COIL	56p	0.001	100p	1200P
Europe & U.K. models	4.7k	FTZ-COIL	56p	0.001	100p	1200p

SCHEMATIC DIAGRAM (3/5)



		USA,Canada	Europe,UK
*1	CONNECTOR	CN9B	CN14B
*2	C303,304	220P	220P
*3	C402	2200P	2200P
*4			
*5	R402	1.5k	1.5k
*6	R425	4.7	2.2
*7	R739,740,747	2.2k	2.2k
*8	RDS	---	○
*9	C409	33p	18p
*10	C435,C436	---	100p

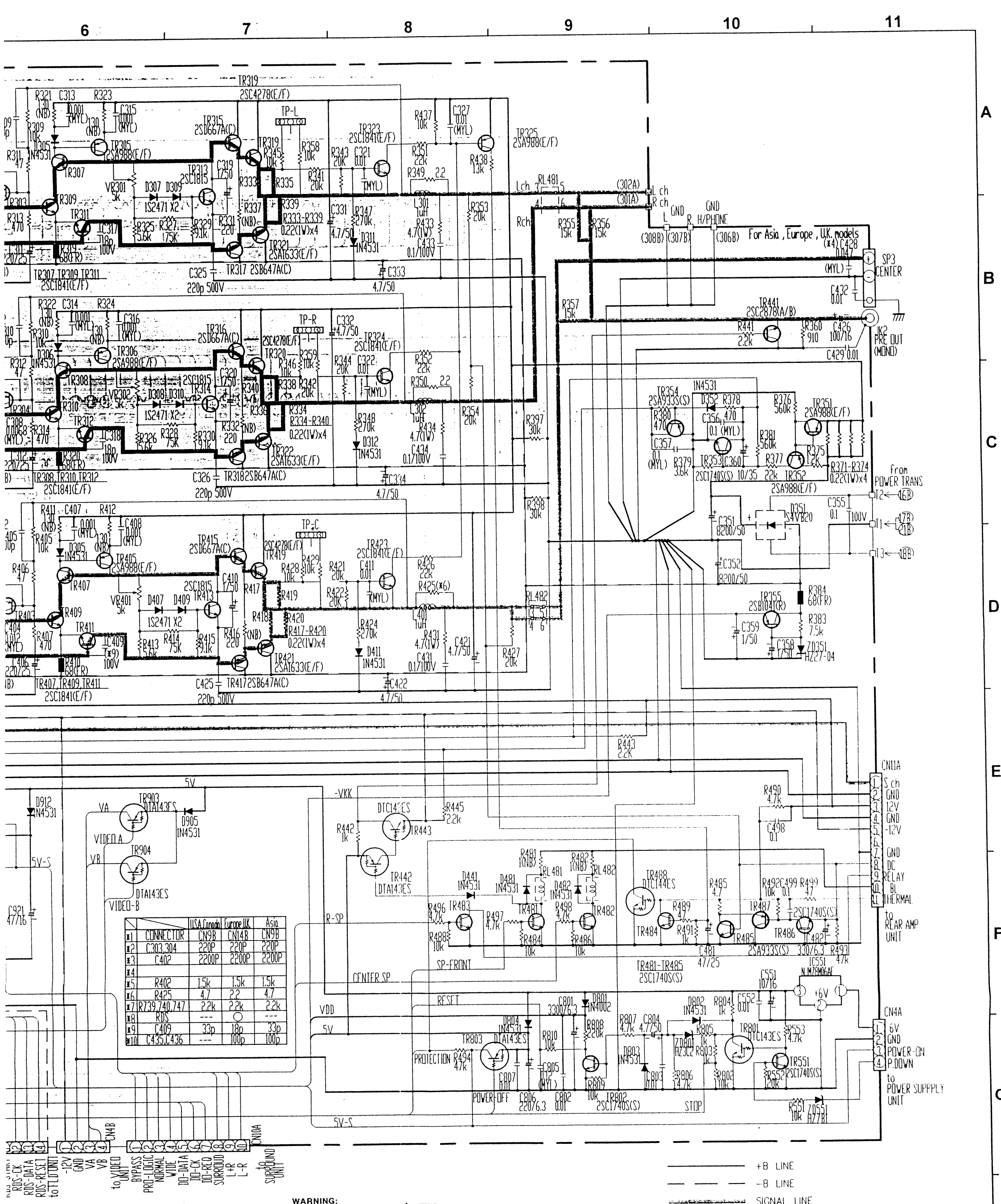
NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.



		USA,Canada	Europe,UK	Asia
※1	CONNECTOR	CN9B	CN14B	CN9B
※2	C303,304	220P	220P	220P
※3	C402	2200P	2200P	2200P
※4				
※5	R402	1.5k	1.5k	1.5k
※6	R425	4.7	2.2	4.7
※7	R739,740,747	2.2k	2.2k	2.2k
※8	RDS	---	○	---
※9	C409	33p	18p	33p
※10	C435,C436	---	100p	100p

ES
RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
H VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
IDITION.
CUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
ICE.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM (4/5)

1 2 3 4 5 6

from POWER-TRANS UNIT CN2A

FL701 FIP

IC701
TMP87CM71F-6314
SYSTEM uCON

R701 1k, R707 1k, R713 1k, R719 1k, R725 1k
SW713 VIDEO SELECT
SW719 STEREO
SW725 TUNER
TUNING DOWN R708 200 SW708
TUNING UP R709 300 SW709
TUNING MODE R710 510 SW710
TUNING BAND R711 1k SW711
MEMORY R712 3k SW712
SW720
SW721
SW722
SW723
SW724
PRO LOGIC R720 200
CENTER MODE R721 300
CONCERT HALL R722 510
LIVE R723 1k
PANEL R724 3k
SW726 CD R726 200
SW727 PHONO R727 300
SW728 VDP/TV R728 510
SW729 VCR R729 1k
SW730 DAT/TAPE MONITOR R730 3k
R731 4.7k
ZD701 HZ9A3

SHIFT R702 200 SW702
PRESET DOWN R703 300 SW703
PRESET UP R704 510 SW704
RDS R705 1k (*4) SW705 (*6)
PTY R706 3k (*5) SW706 (*6)
RT SW707 (*6)

D703 IN4531
R737 10K
C707 4.7/50
TR703 DTC124ES
For Europe and U.K. models

R732 1k
R733 200
J96 (*3)
(*1) CN1B
TO TUNER UNIT
(*9)CN3A
(*10)CN3B
(*8)SW750

J88 (*2)
S, -VKK, DO-CLK, DO-REQ, DO-DATA, 5V, VIDEO-A, VIDEO-B, KEY 5, KEY 4, KEY 3, KEY 2, KEY 1, MODE 1, TU-MUTE, VIDEO-C
RDS-START, PROTECTION, EXP-DATA, EXP-CLK, EXP-STB, VR-CLK, VR-DATA, VR-STB, GND, TUNED, RESET, X IN, X OUT, GND, STOP, REMOCON, STEREO, RDS-CLK, RDS-DATA, RDS-RESET, PLL-CLK, PLL-STB, PLL-DATA
XT701 4.00MGW
5G, 4G, 3G, 2G, 1G, LED-STANDBY, LED-PRO LOGIC, VDD, SP-FRONT, VOL-UP, VOL-DOWN, POWER-OFF, ST/MONO, FUNC-STB, FUNC

R734 10k
R735 10k
R736 10k

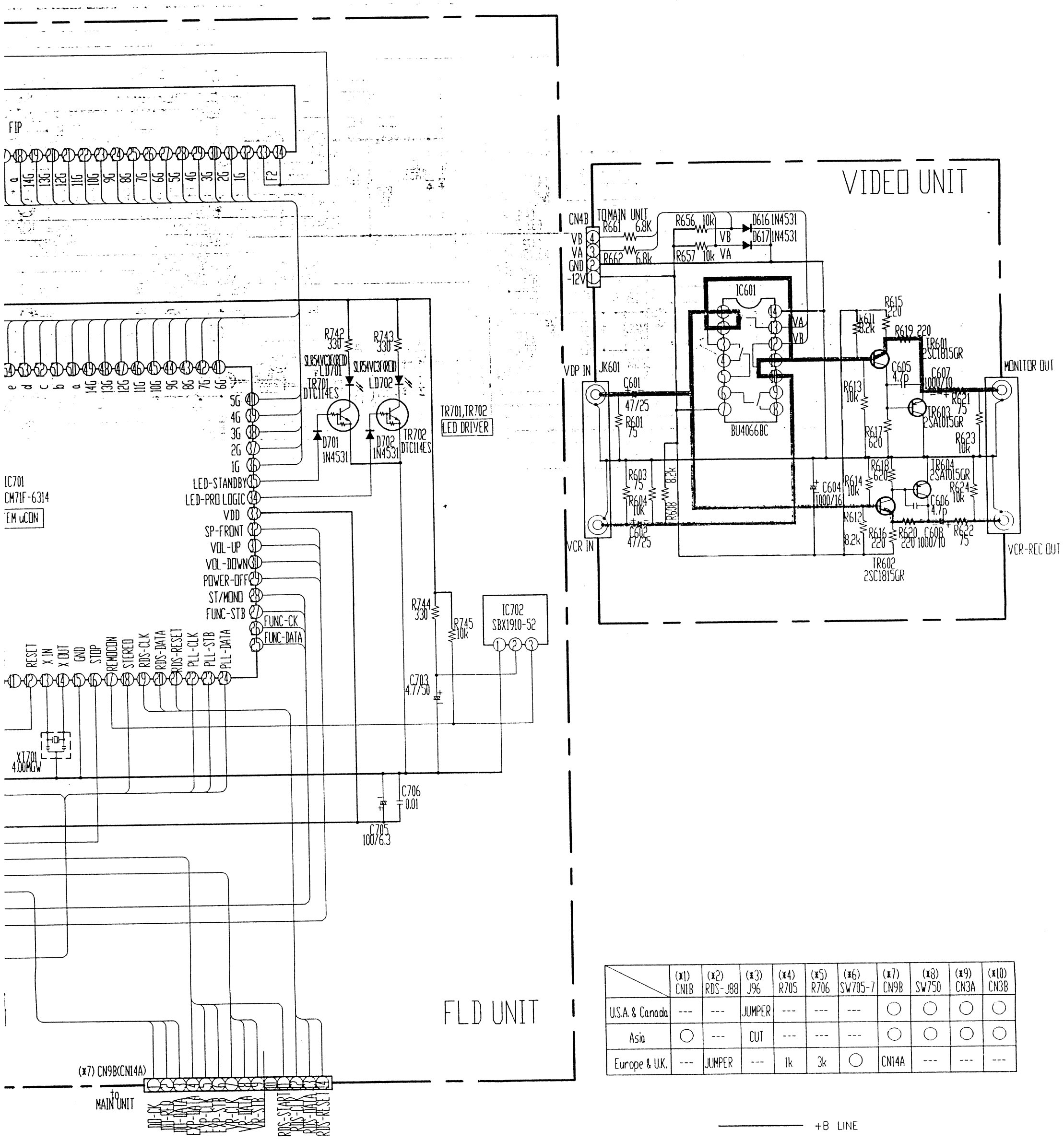
CN25A
to MAIN-UNIT
(*7) CN9B(CN14A)
to MAIN UNIT

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM.
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.



	(*1) CN1B	(*2) RDS-J88	(*3) J96	(*4) R705	(*5) R706	(*6) SW705-7	(*7) CN9B	(*8) SW750	(*9) CN3A	(*10) CN3B
U.S.A. & Canada	---	---	JUMPER	---	---	---	○	○	○	○
Asia	○	---	CUT	---	---	---	○	○	○	○
Europe & U.K.	---	JUMPER	---	1k	3k	○	CN14A	---	---	---

+B LINE
-B LINE
SIGNAL LINE

bol ⚠ ▨ have critical characteristics.
irts recommended by the manufacturer.

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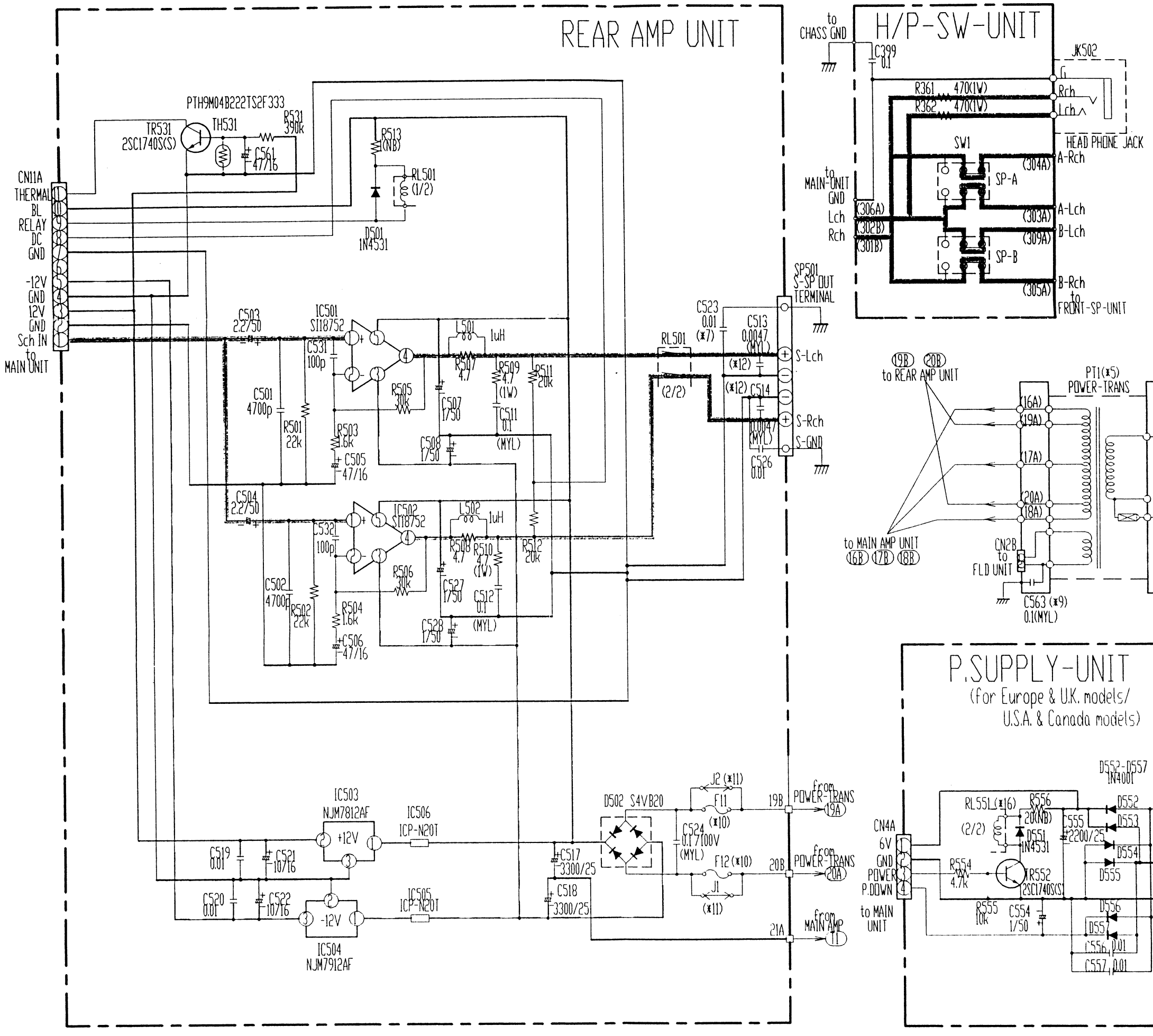
2) a line to chassis resistance check. If the leakage
nps, or if the resistance from chassis to either side
nan 240 kohms, the unit is defective.

the customer until the problem is located and

SCHEMATIC DIAGRAM (5/5)

1 2 3 4 5 6 7



	(*10) F11,F12	(*12) C513,C514
U.S.A. & Canada models	5A/125V	---
Europe & U.K. models Asia model	T4A	○

	(*1) F1	(*16) J42	(*2) F2	(*3) R557	(*4) AC OUTLET	(*5) MAIN TRANS	(*6 SUB T
Asia model	---	○	T2.5A	---	---	P# BT00543	P# BT00
Europe & U.K. models	---	○	T2.5A	---	---	P# BT00542	P# BT00
U.S.A. & Canada models	6A 125V	----	4A 125V	2.7M	○	P# BT00541	P# BT00

NOTES
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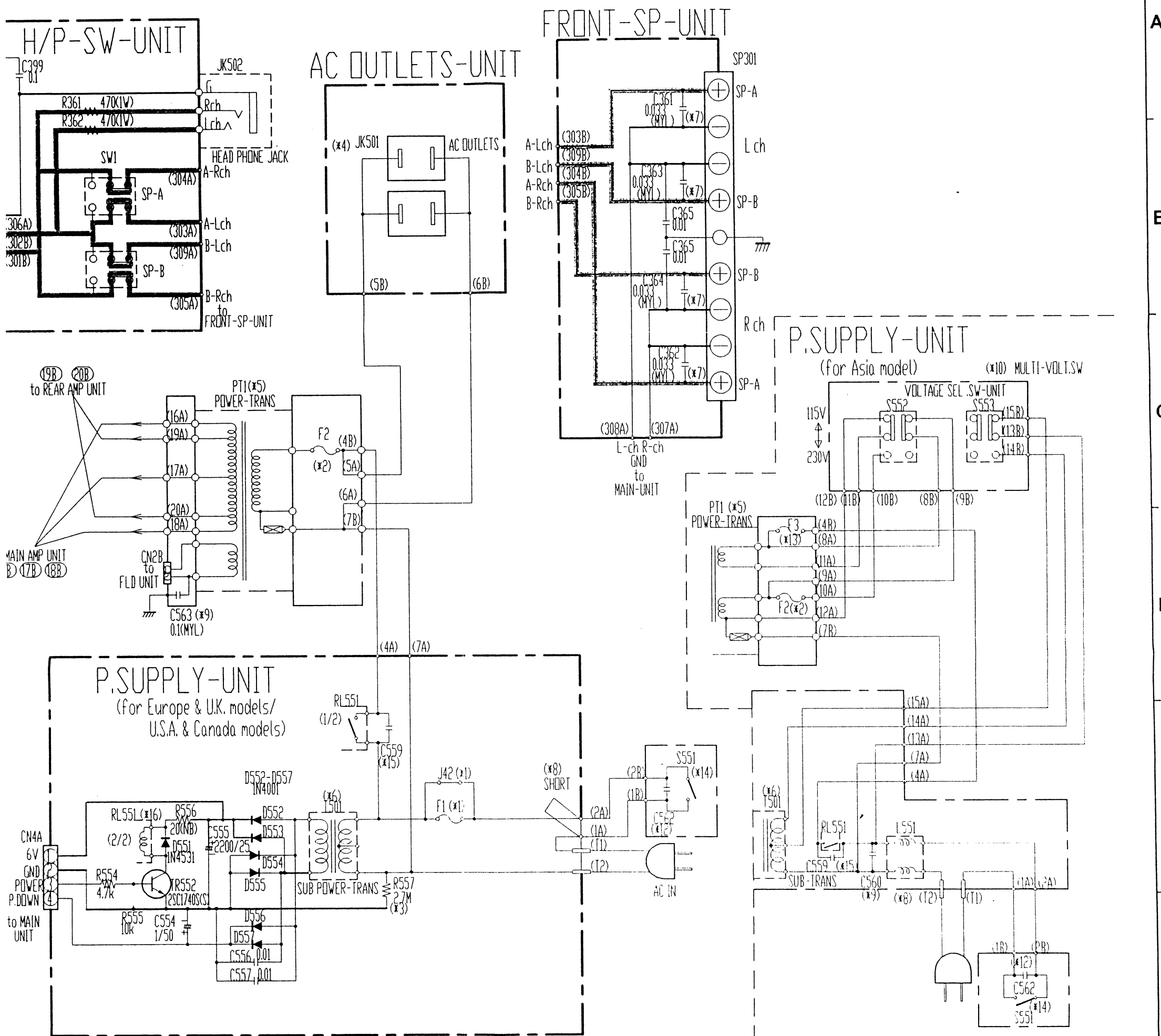

(*16) J42	(*2) F2	(*3) R557	(*4) AC OUTLET	(*5) MAIN TRANS	(*6) SUB TRANS	(*7) C361-C364	(*8)	(*9) C560	(*10) MULTI VOLT	(*12) C562	(*13) F3	(*14) S551 POWER-SW	(*15) C559	(*16) RL551	(*17) C523
○	T2.5A	---	---	P# BT00543	P# BT00533	○	○	---	○	---	T4A	---	0.0047u 250V	P# 2640576	---
○	T2.5A	---	---	P# BT00542	P# BT00532	○	---	---	---	0.0047u 250V	---	P# FF00161	0.0047u 250V	P# 2640576	○
---	4A 125V	2.7M	○	P# BT00541	P# BT00531	---	○	○	---	---	---	---	0.01u 250V	P# F.J00051	---

+B LINE
-B LINE
SIGNAL LINE

NOTES

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